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(12) **United States Patent Header**

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(45) **Date of Patent:** Apr. 7, 2020

(54) **HEATED SNOW GUARD**
(71) Applicant: **Gregory A Header**, Pine Grove, PA (US)

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(72) Inventor: **Gregory A 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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(21) Appl. No.: **15/974,582**

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(22) Filed: **May 8, 2018**

Sno Gem Product Catalog 2017, Nov. 2017, Sno Gem, Inc., McHenry, Illinois.

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(65) **Prior Publication Data**
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Assistant Examiner — Adam G Barlow
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(51) **Int. Cl.**
E04D 13/10 (2006.01)
H05B 3/00 (2006.01)
(52) **U.S. Cl.**
CPC **E04D 13/103** (2013.01); **H05B 3/0033** (2013.01); **H05B 2203/032** (2013.01)

(57) **ABSTRACT**

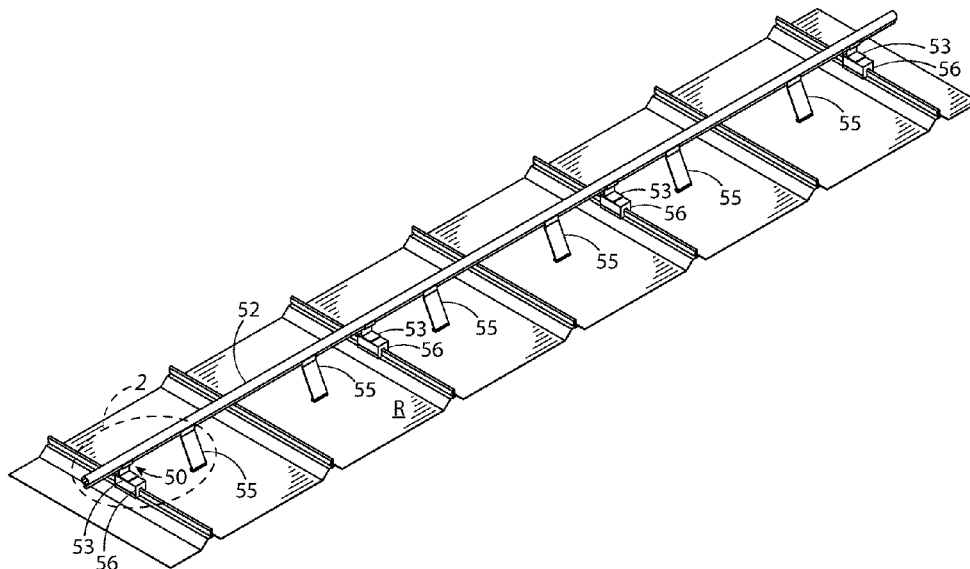
(58) **Field of Classification Search**
CPC E04D 13/103; H05B 3/0033; H05B 2203/032
USPC 52/24–26; 219/213, 534, 535, 544, 553
See application file for complete search history.

A snow guard assembly heated within one or more snow guard tubes. Heating of the snow guard tube prevents excessive accumulation of snow and helps prevent snow build up and spill over above the top of the snow guard. The tubes can be length-wise separable to place and service the heating elements. The heating element can be standard heat tape or infrared LEDs. The snow guard tubes can optionally have a non-uniform cross-sectional thickness to direct the heat more efficiently in a desired orientation. The interior of the snow guard tubes can be selectively coated with infrared absorbing or reflective material to direct the heat in a desired orientation when infrared LEDs are used as a heat source. The snow guard can be attached to many types of roof surfaces including tile roofs, metal roofs with or without standing seams, and shingle roofs.

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10 Claims, 37 Drawing Sheets



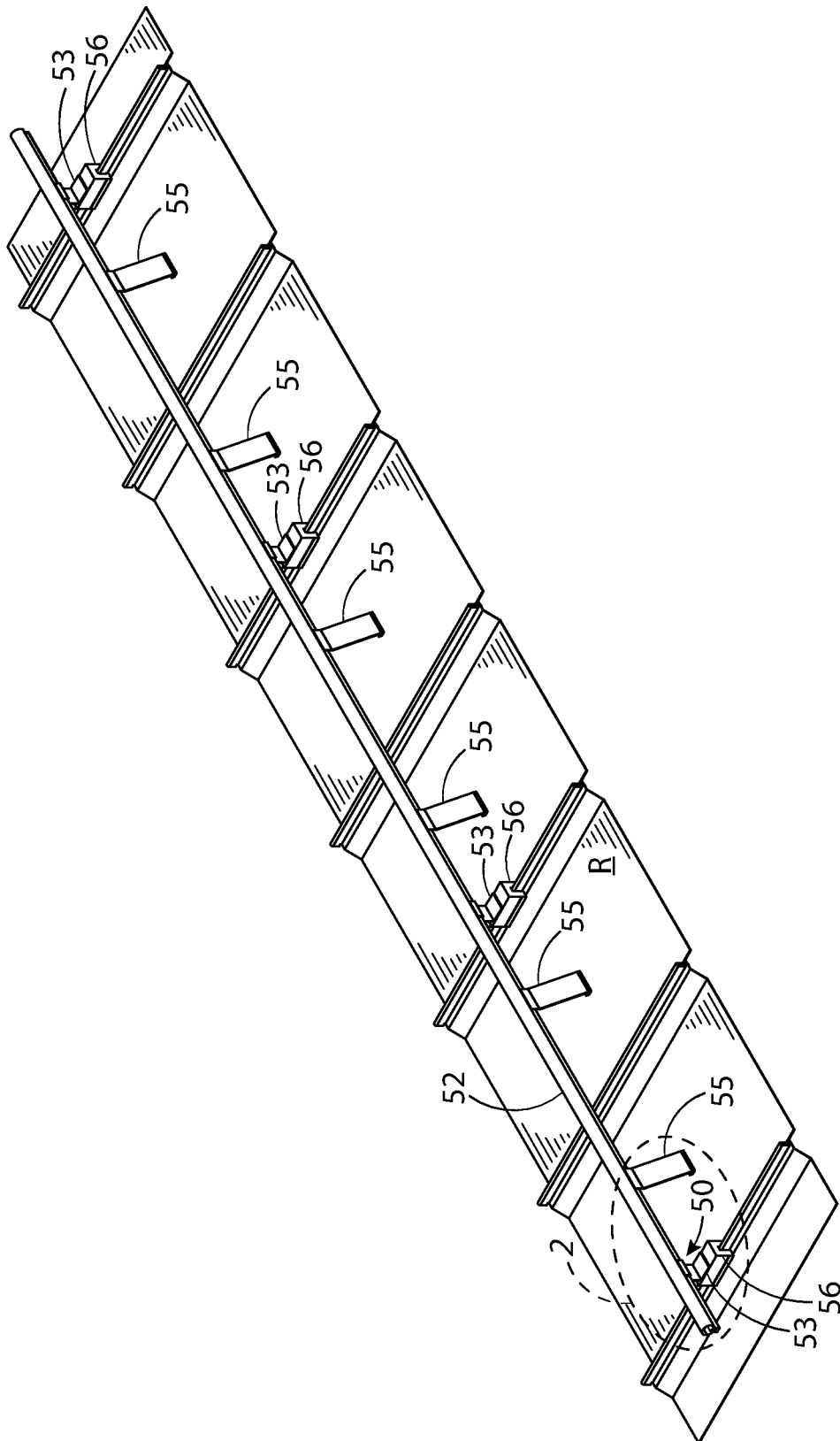


FIG. 1

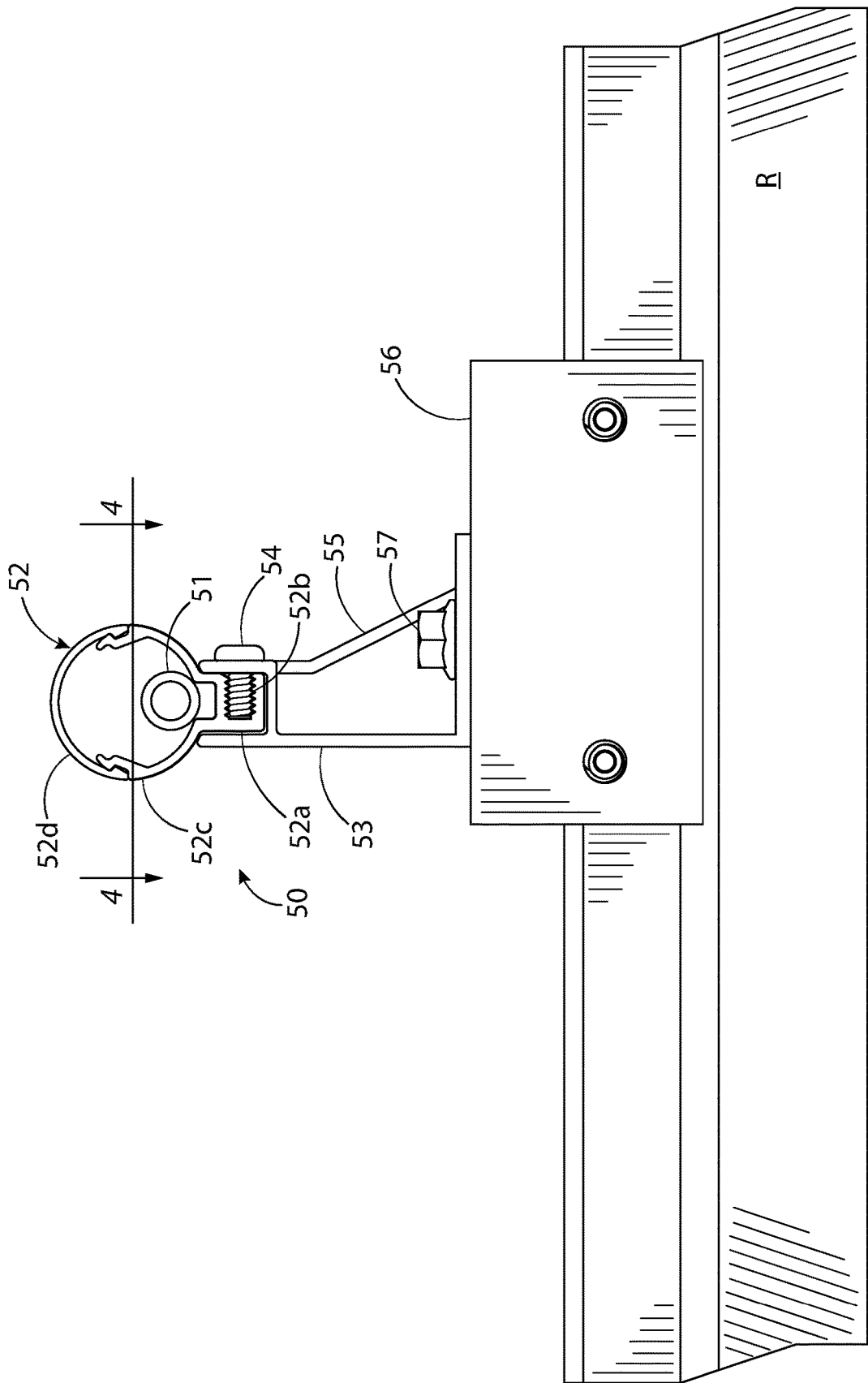


FIG. 3

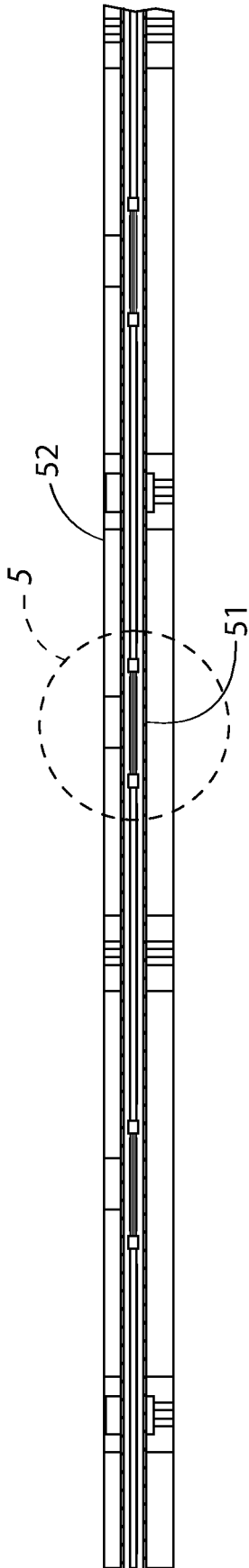


FIG. 4

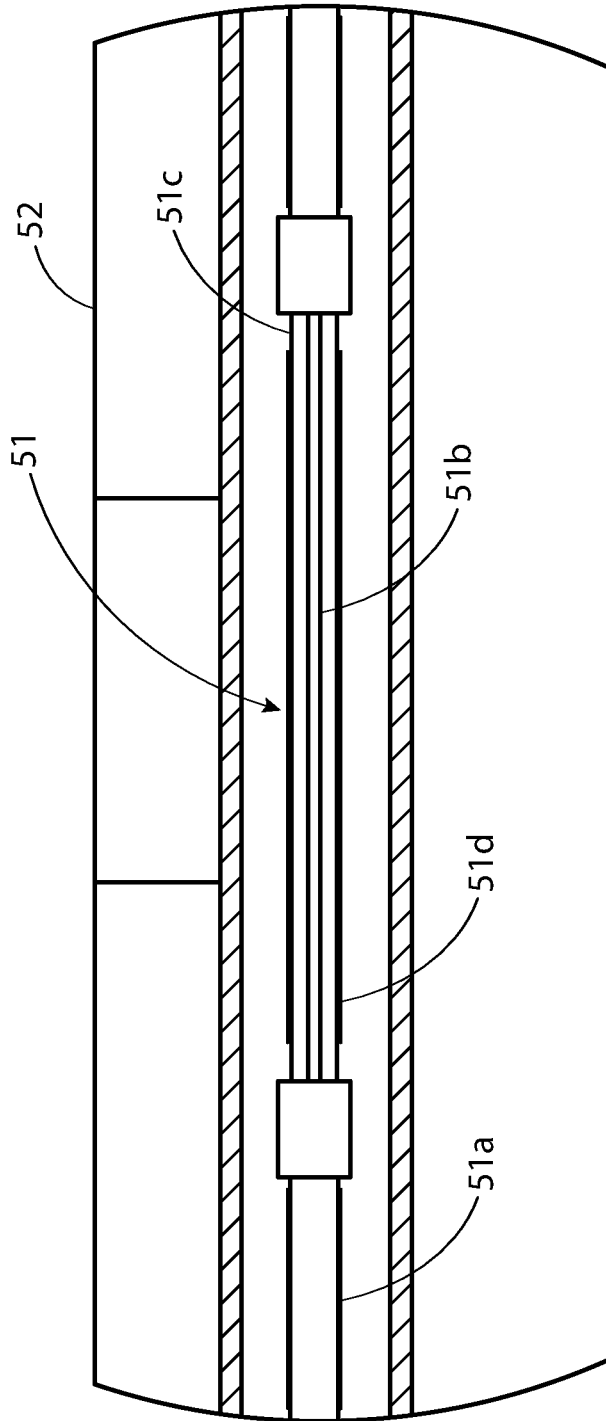
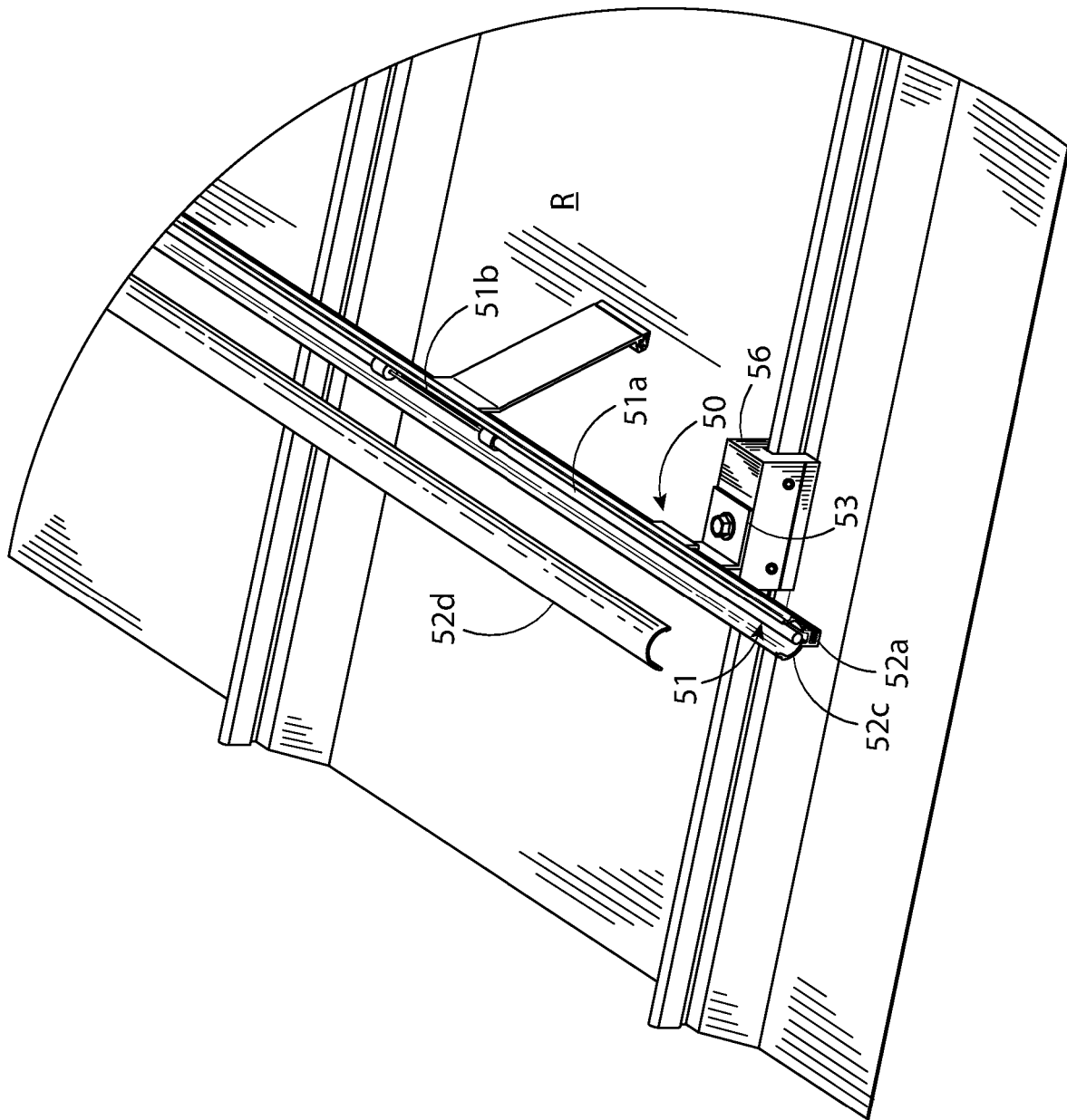


FIG. 5

FIG. 6



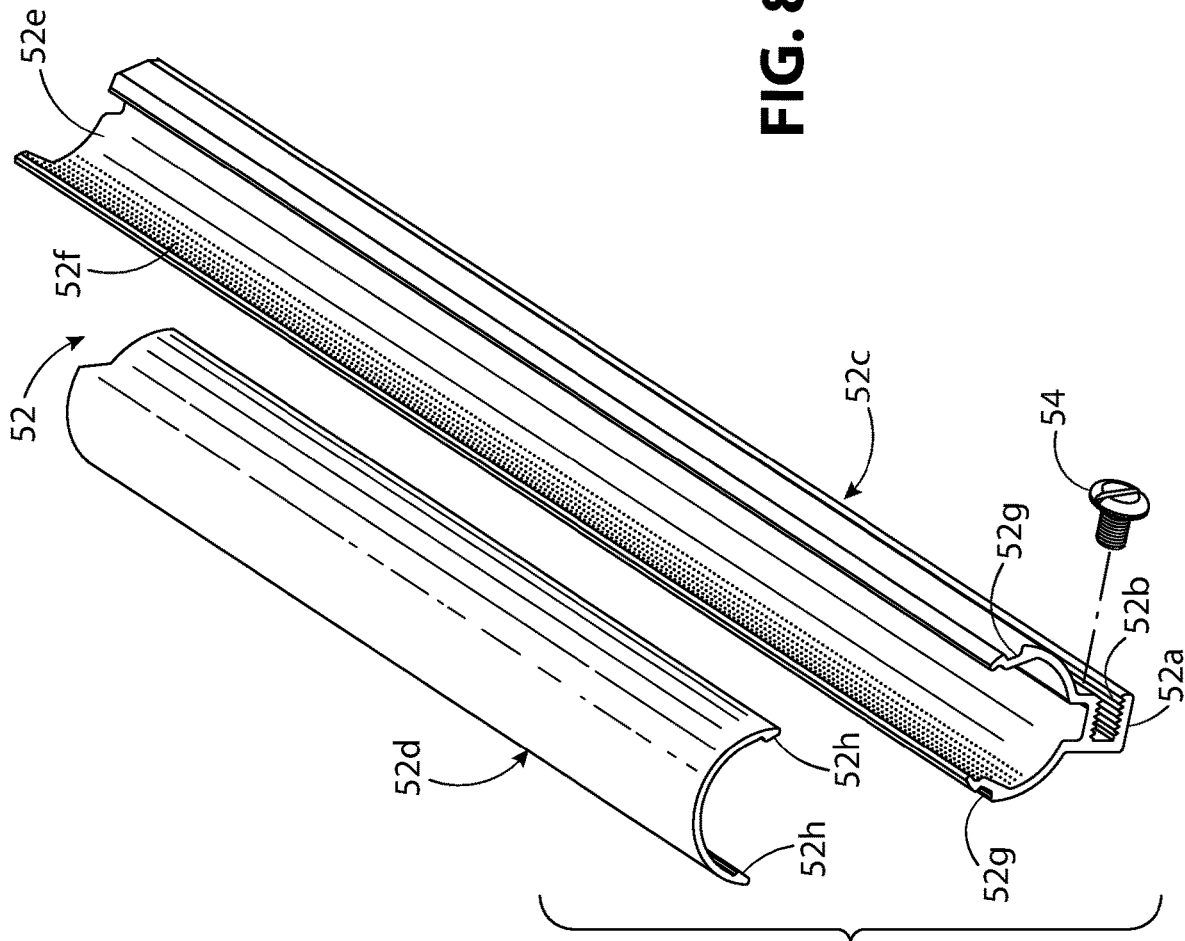


FIG. 7

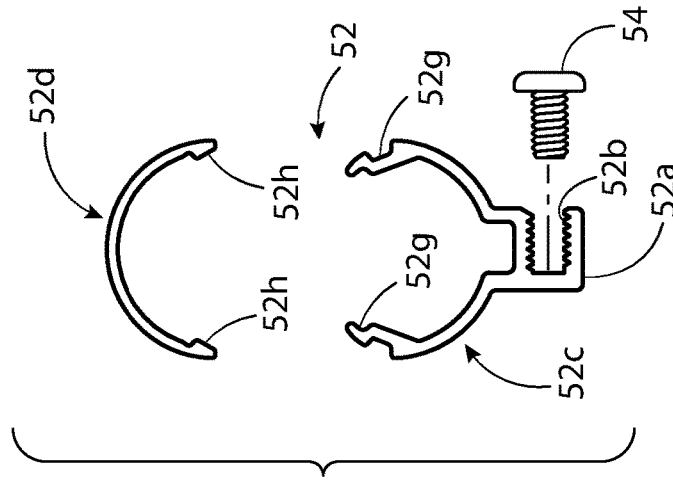
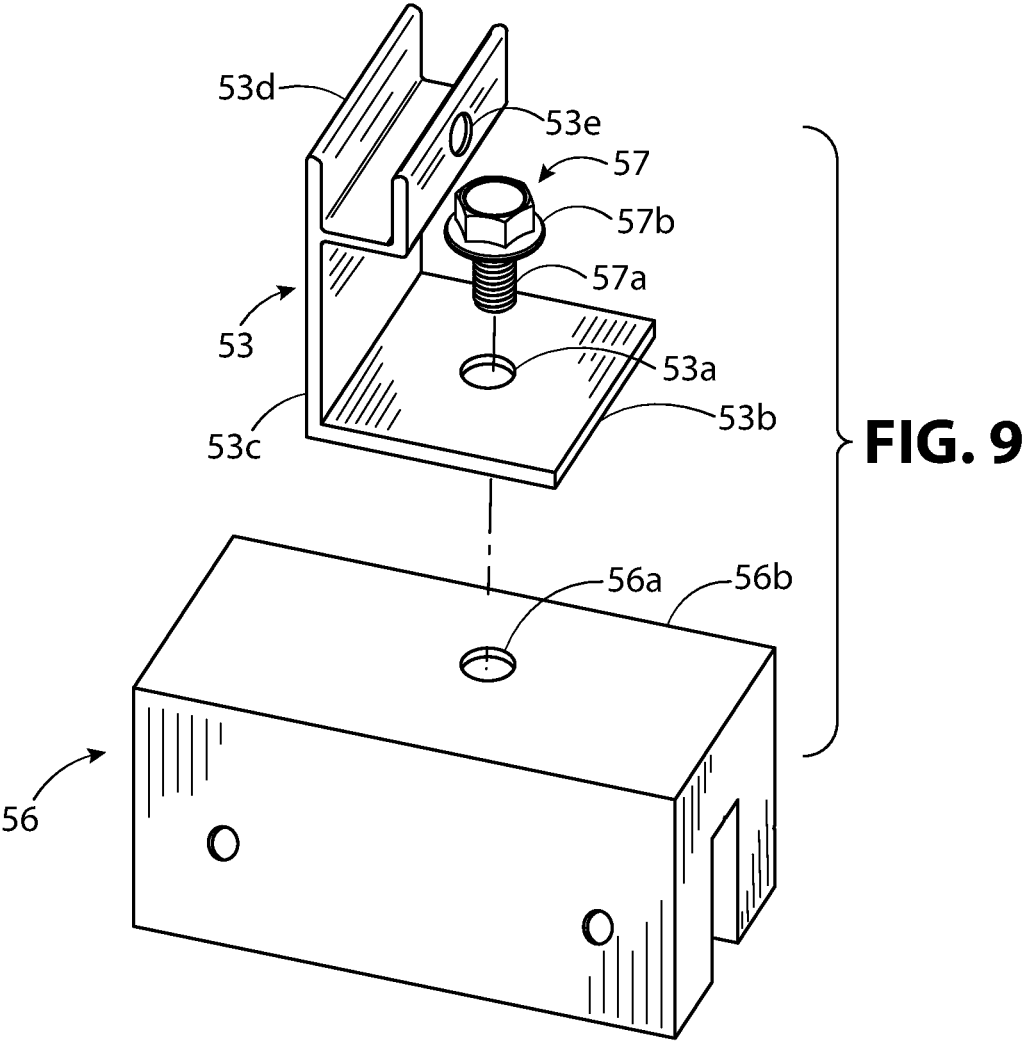


FIG. 8



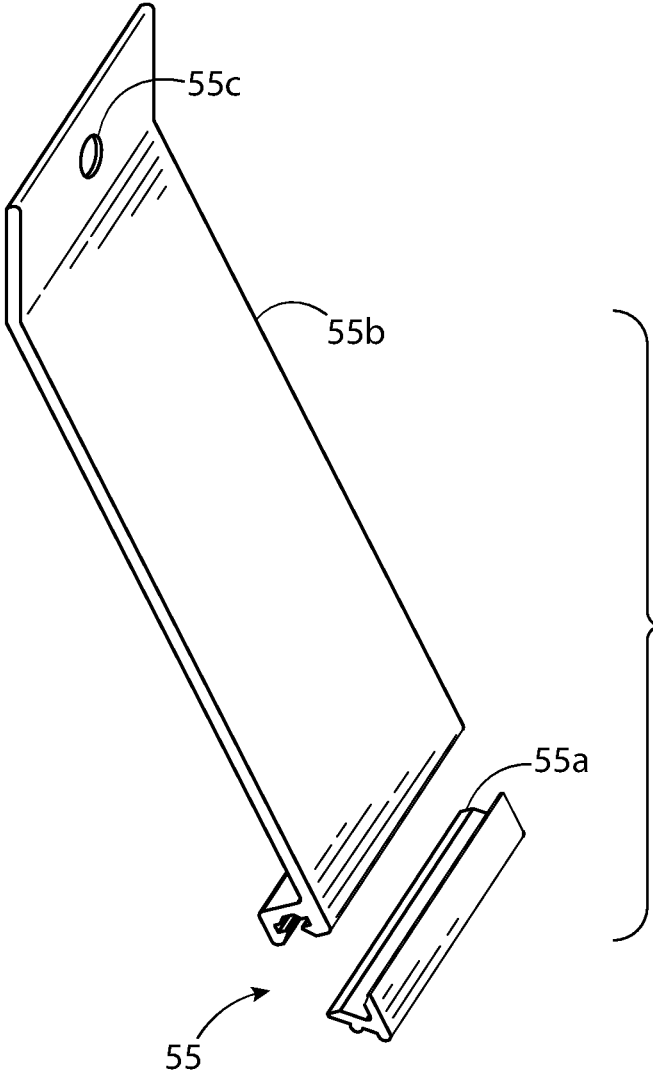


FIG. 10

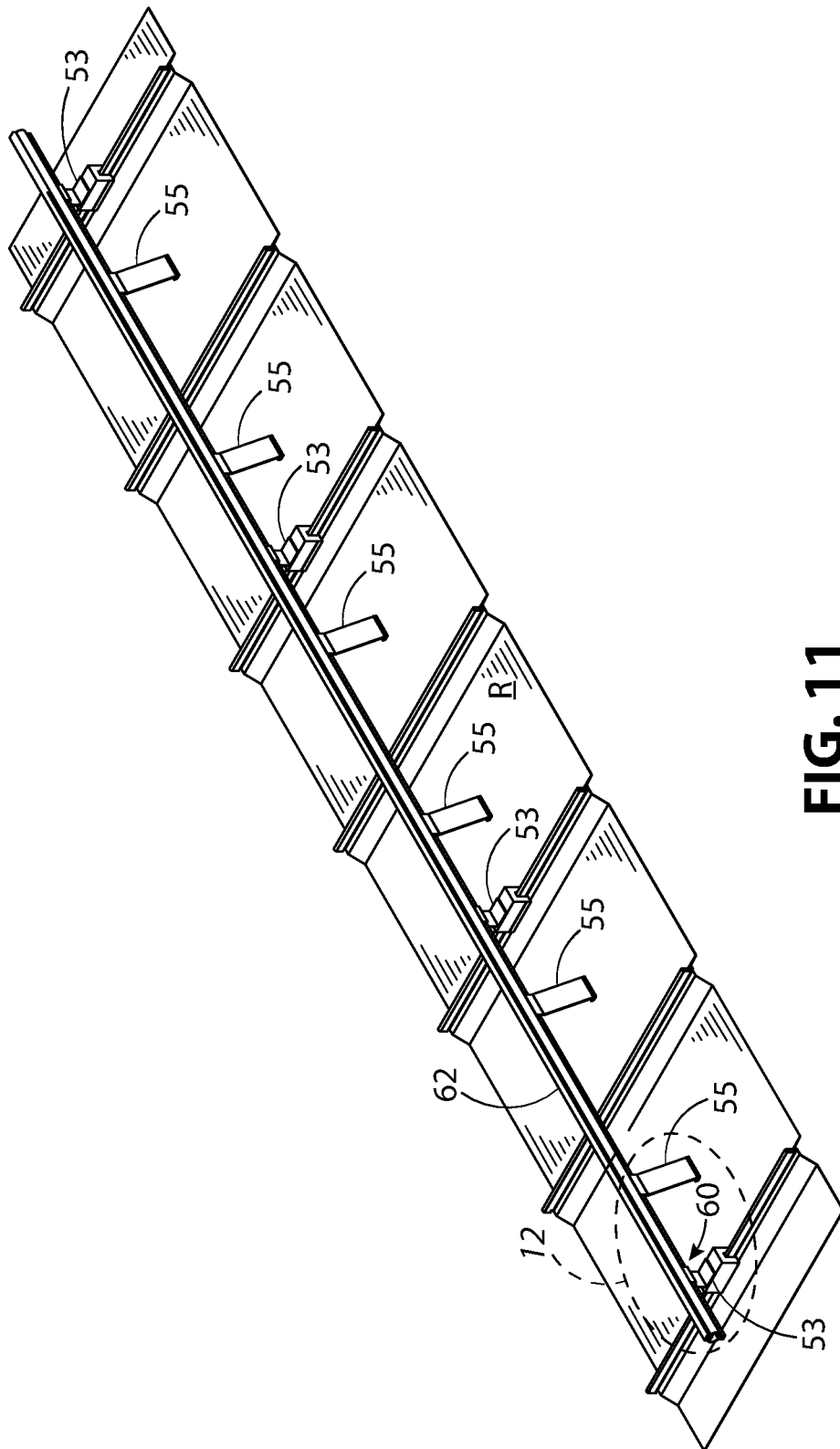


FIG. 11

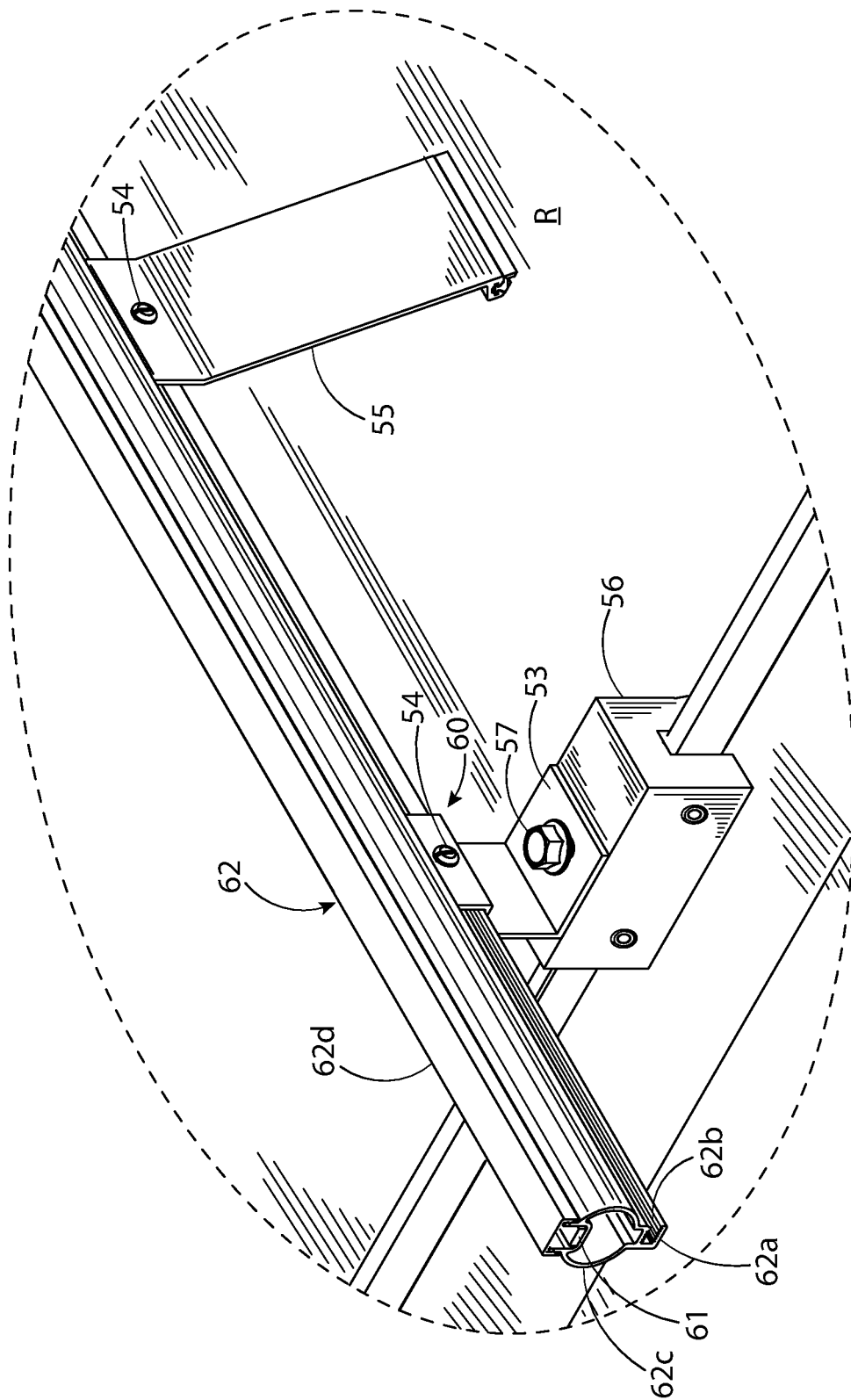


FIG. 12

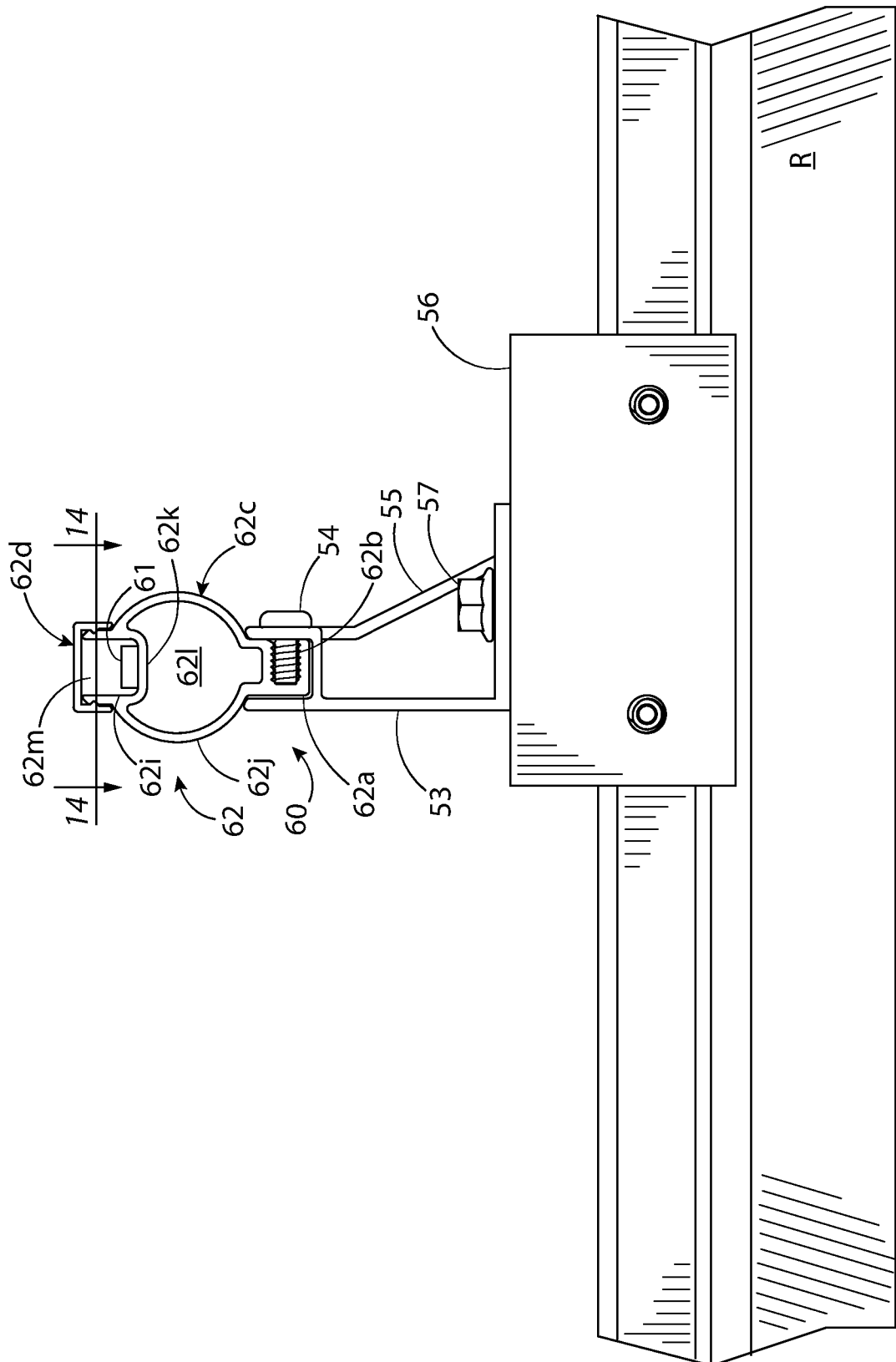


FIG. 13

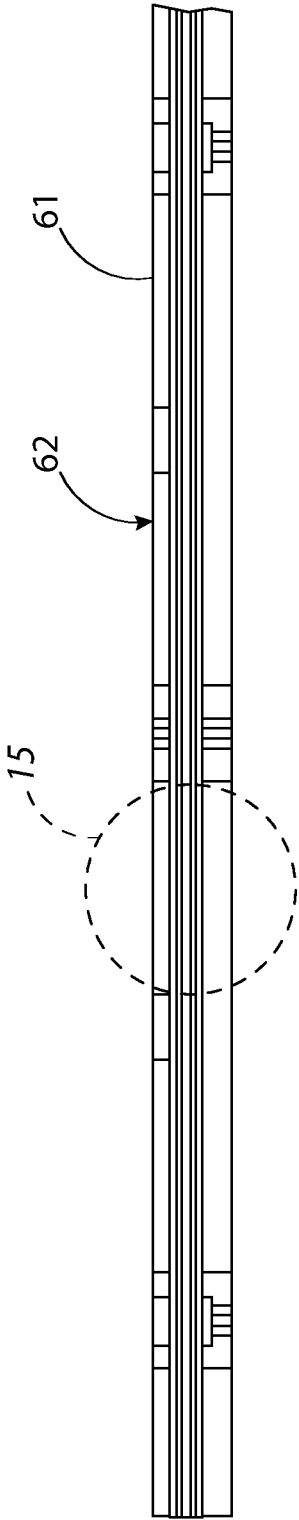


FIG. 14

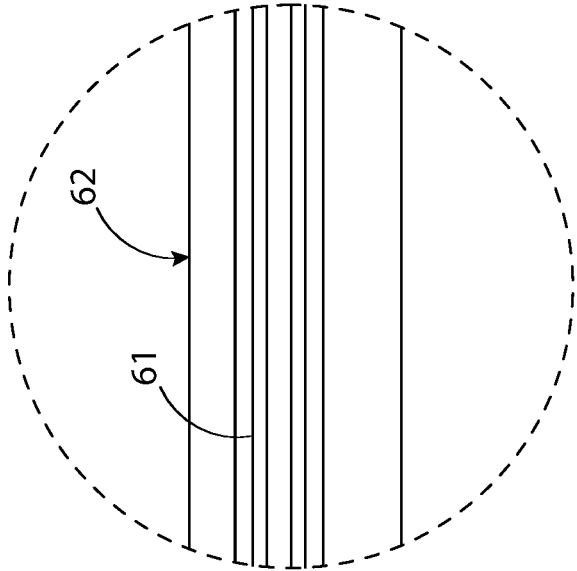


FIG. 15

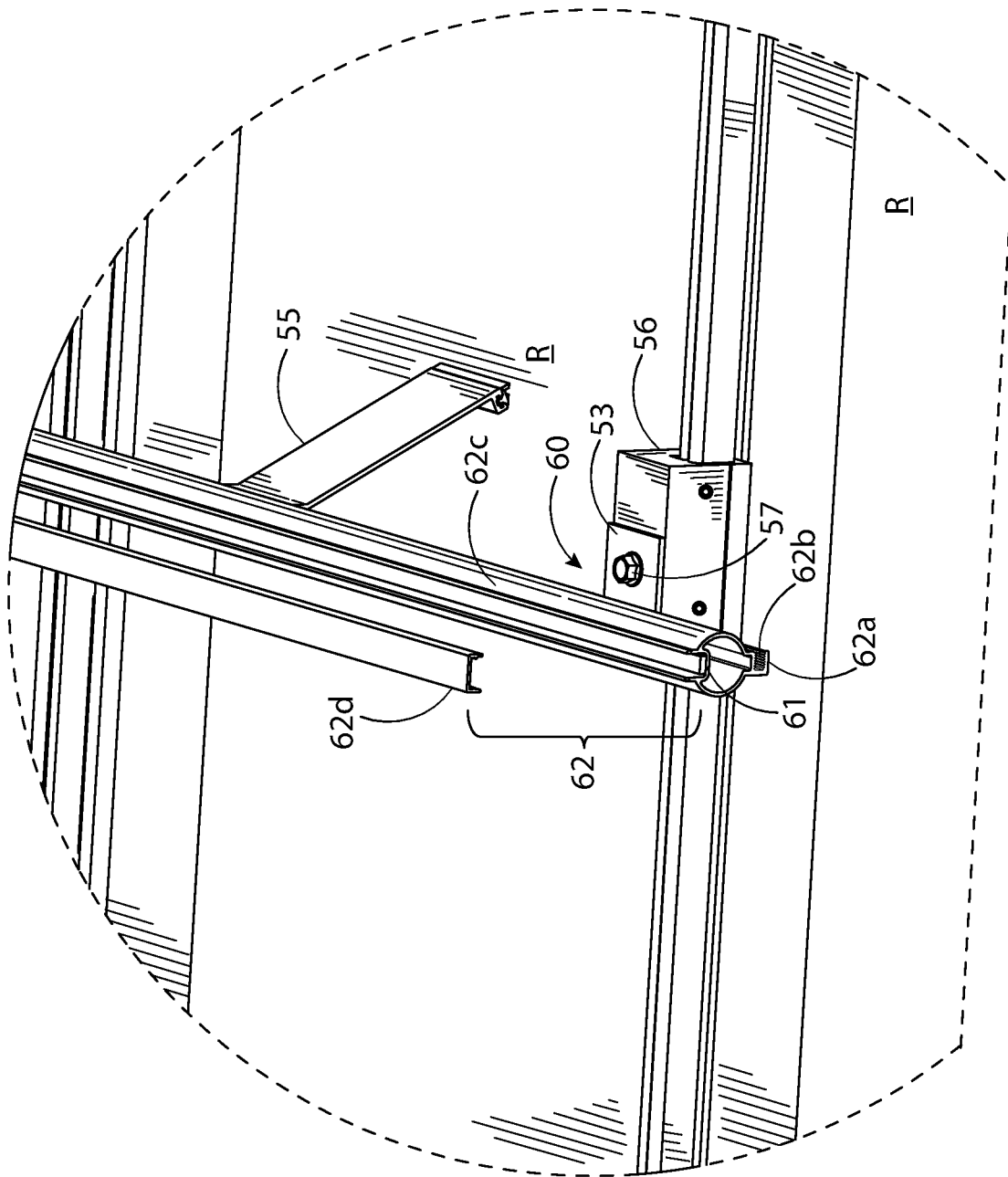


FIG. 16

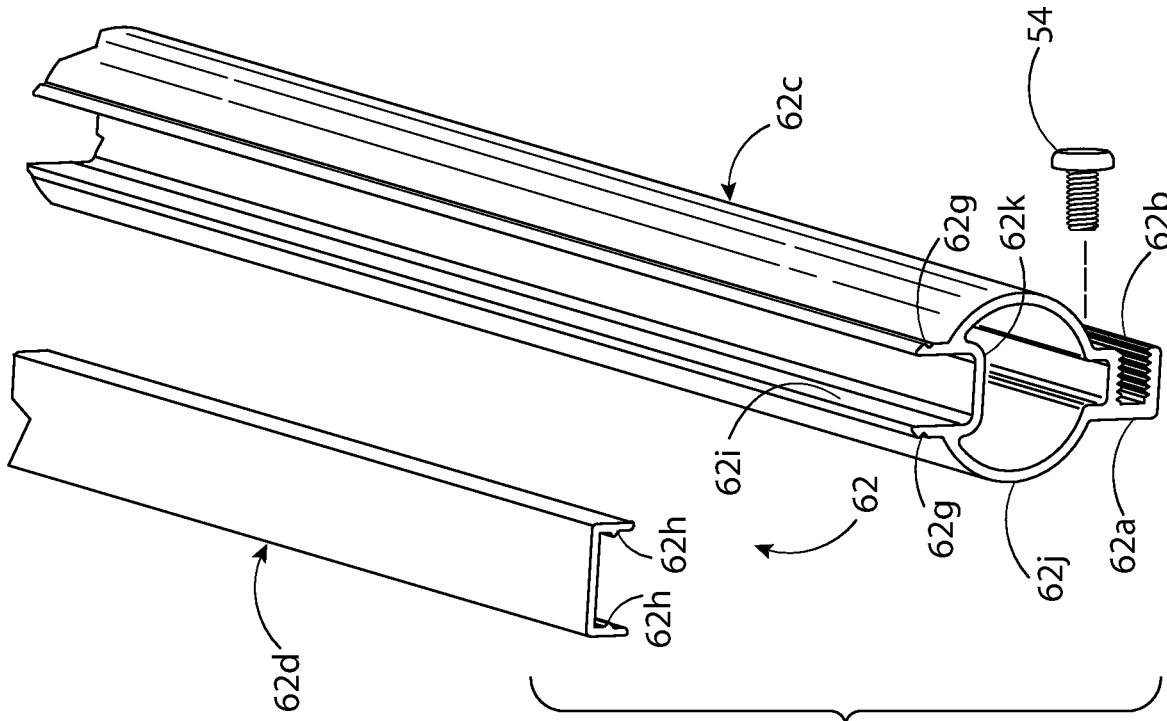


FIG. 17

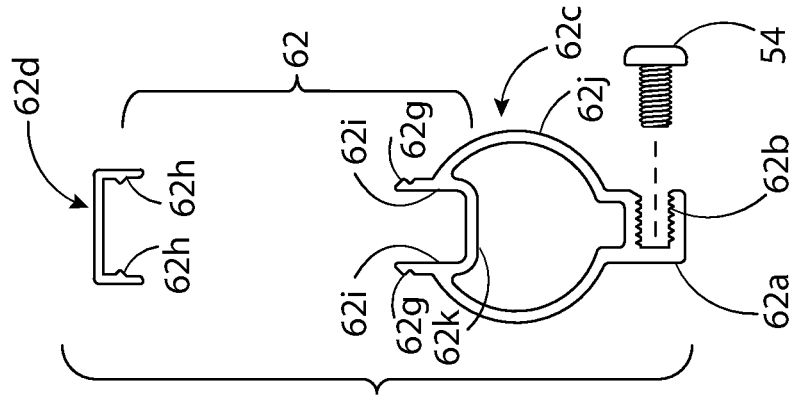


FIG. 18

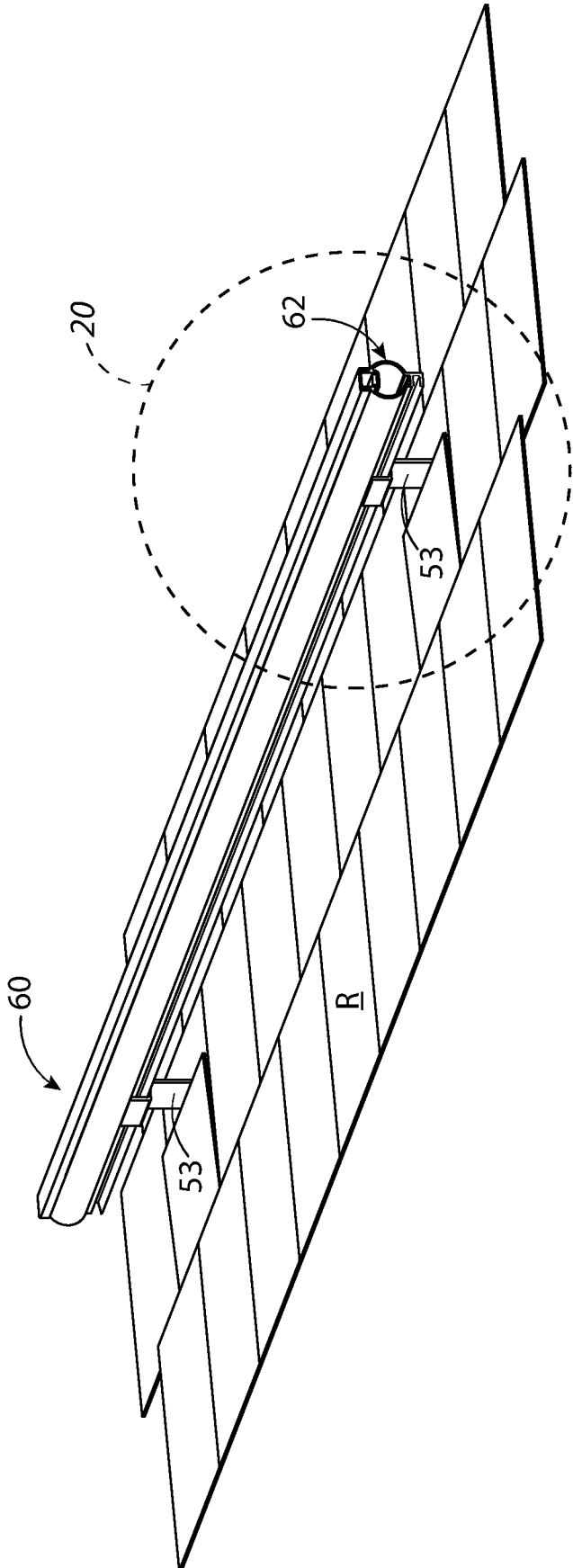


FIG. 19

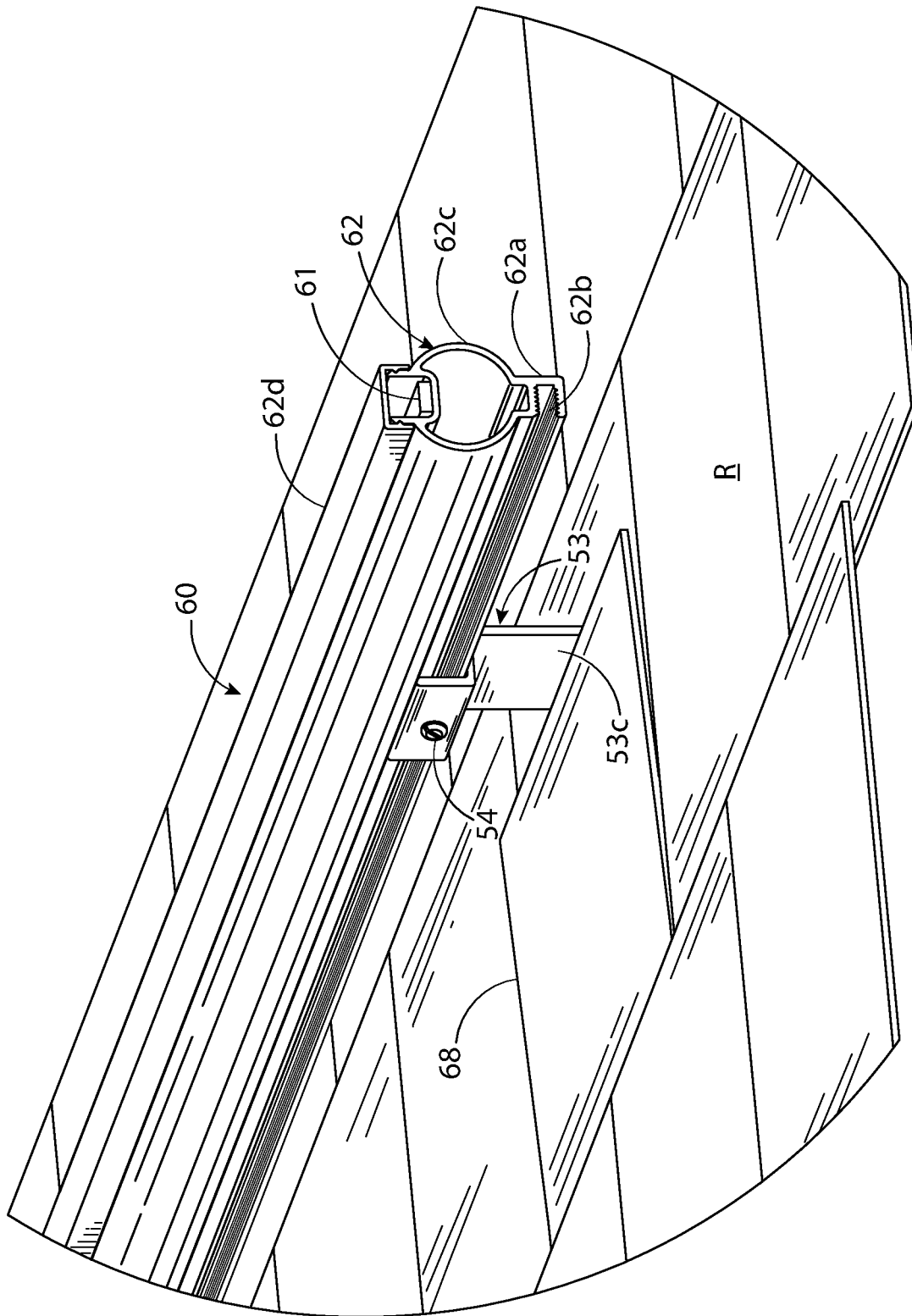


FIG. 20

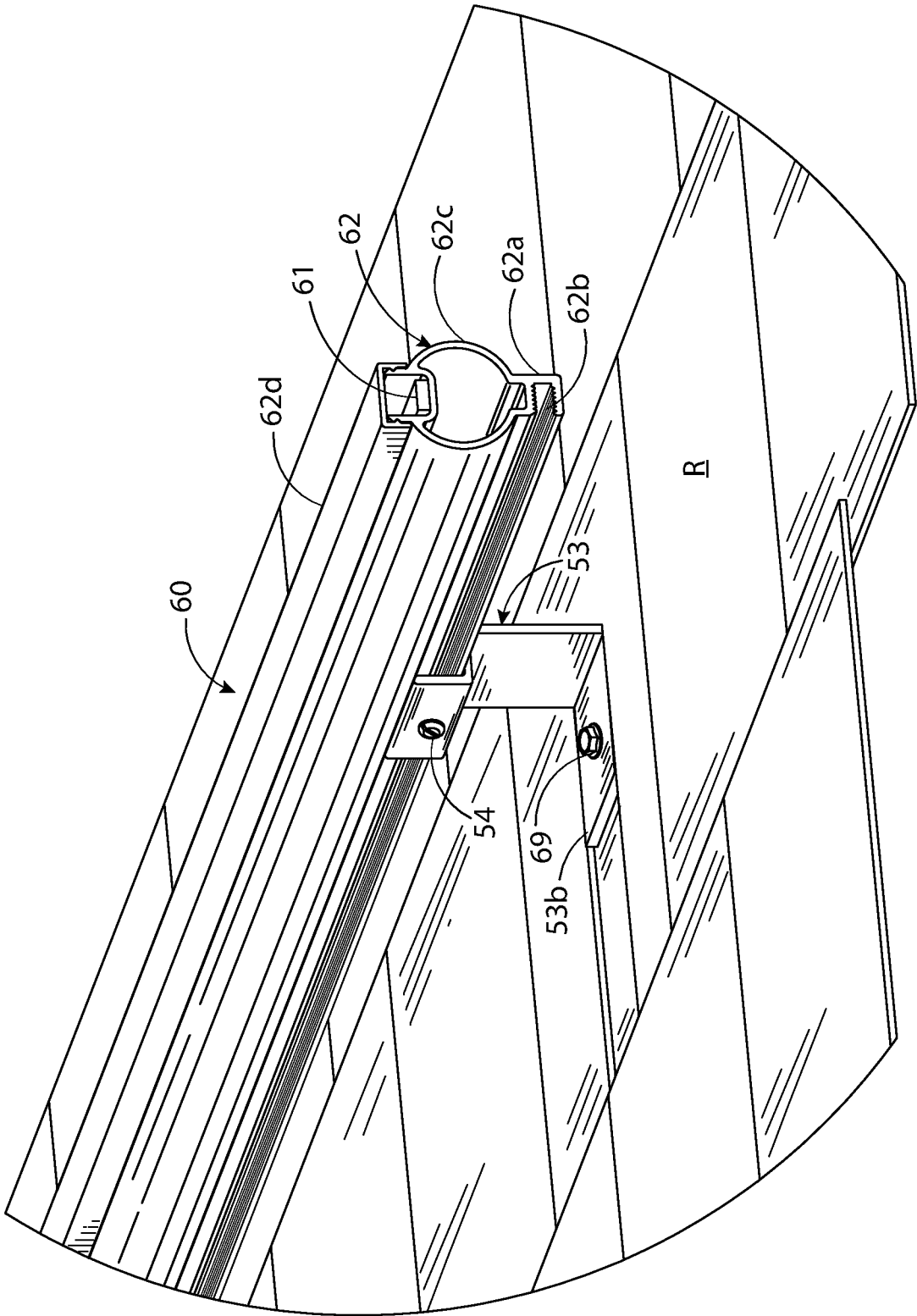


FIG. 21

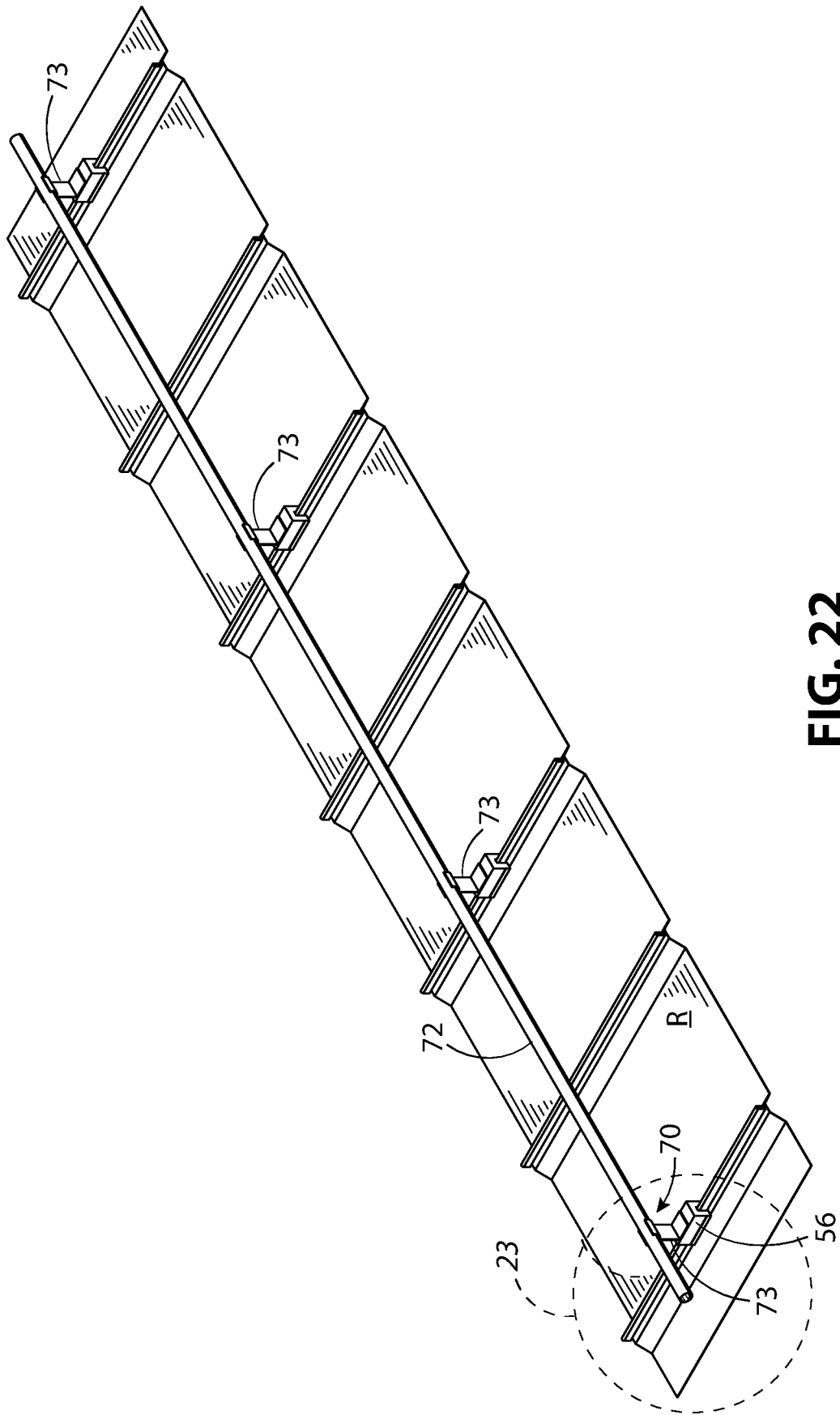


FIG. 22

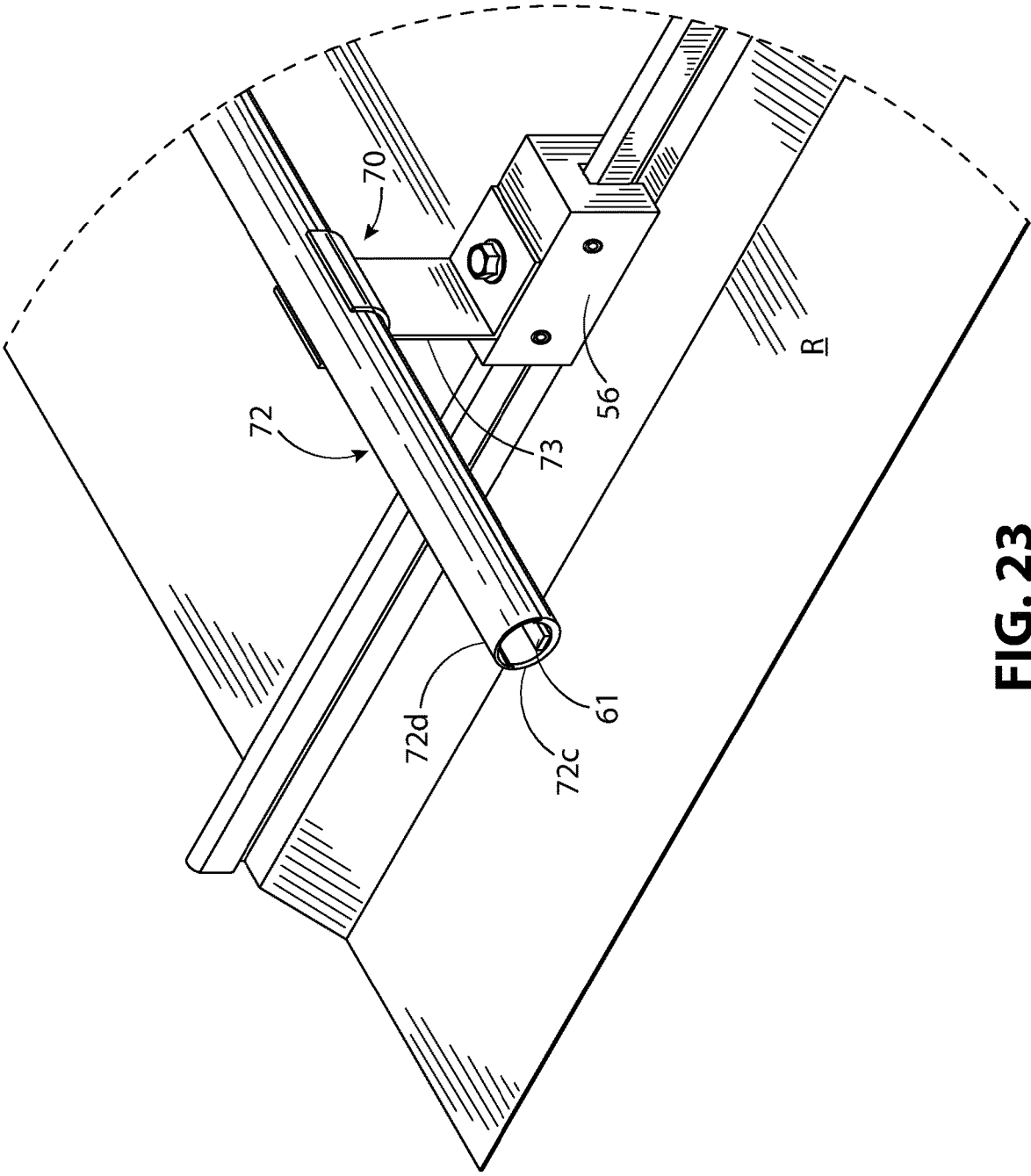


FIG. 23

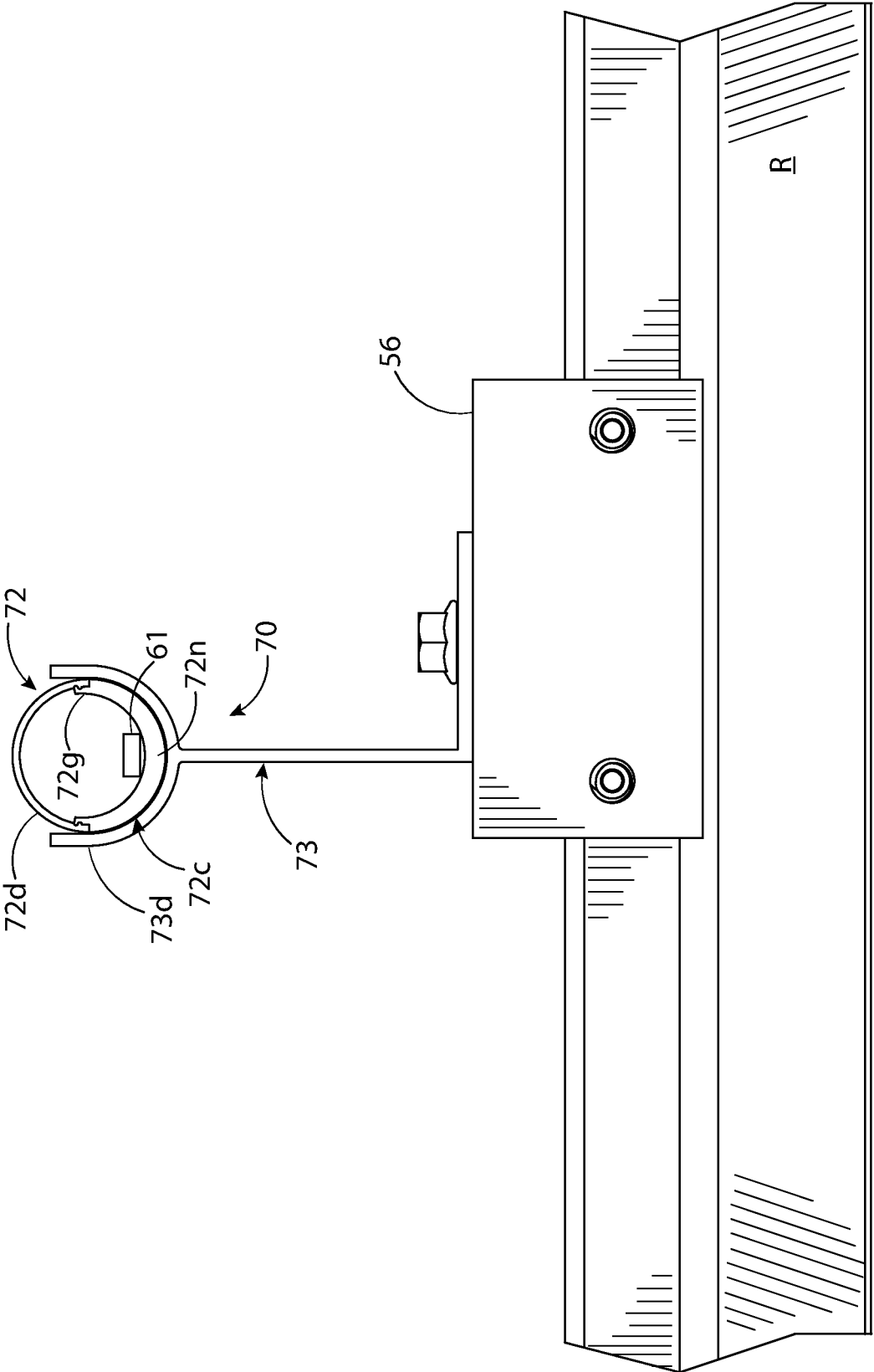


FIG. 24

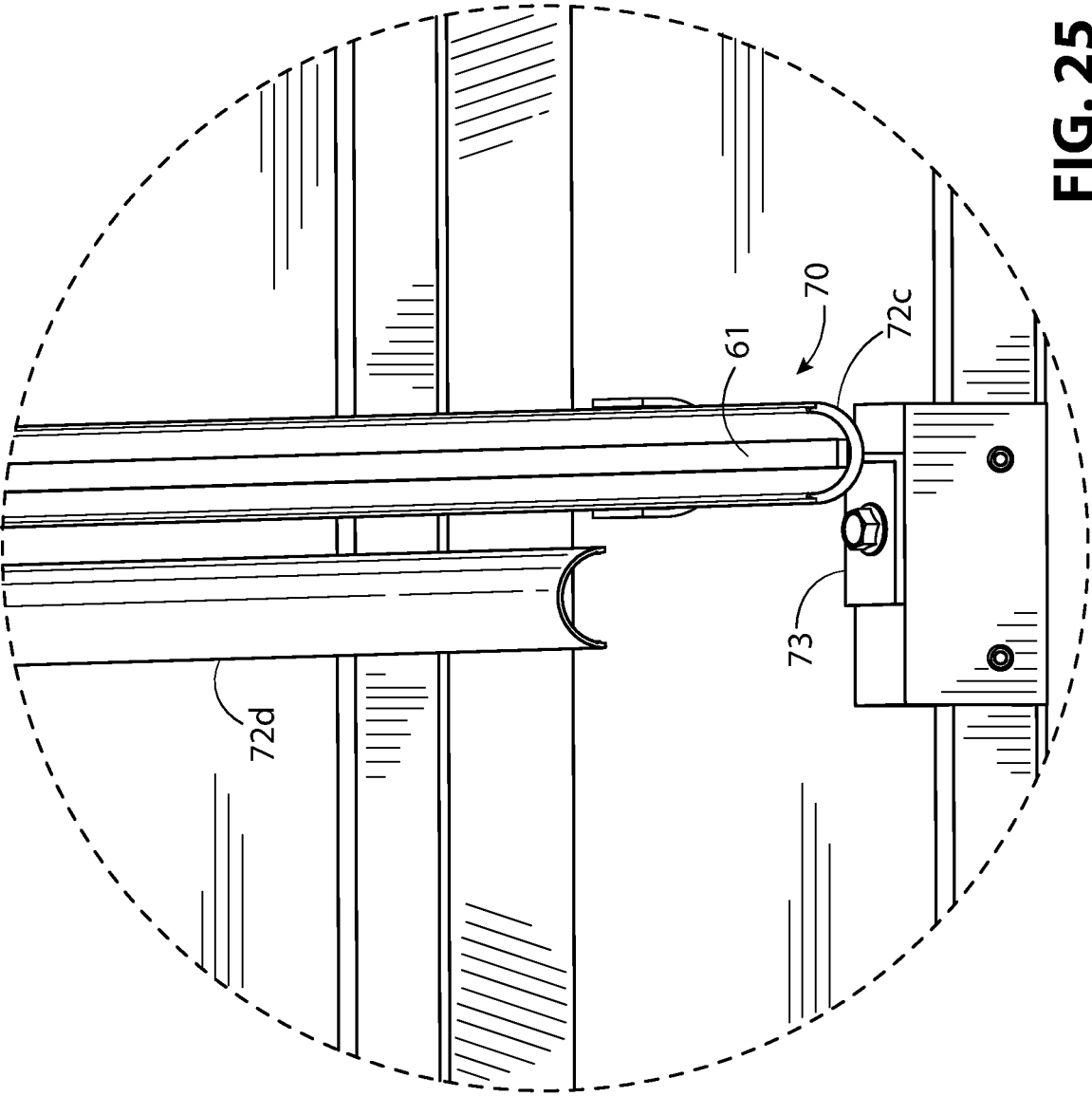


FIG. 25

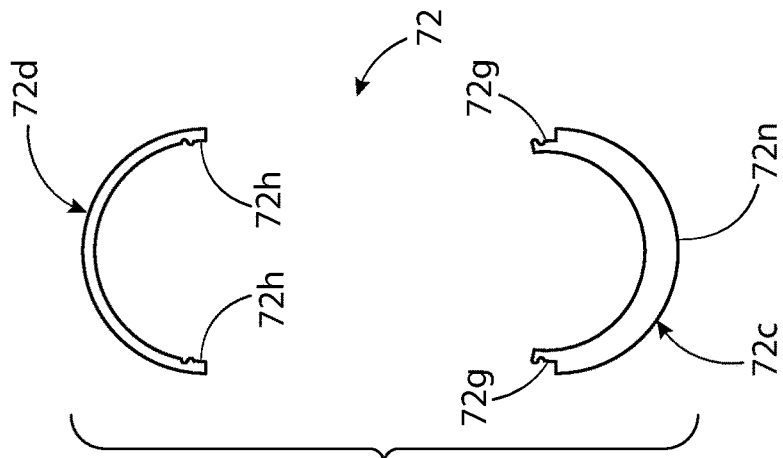


FIG. 27

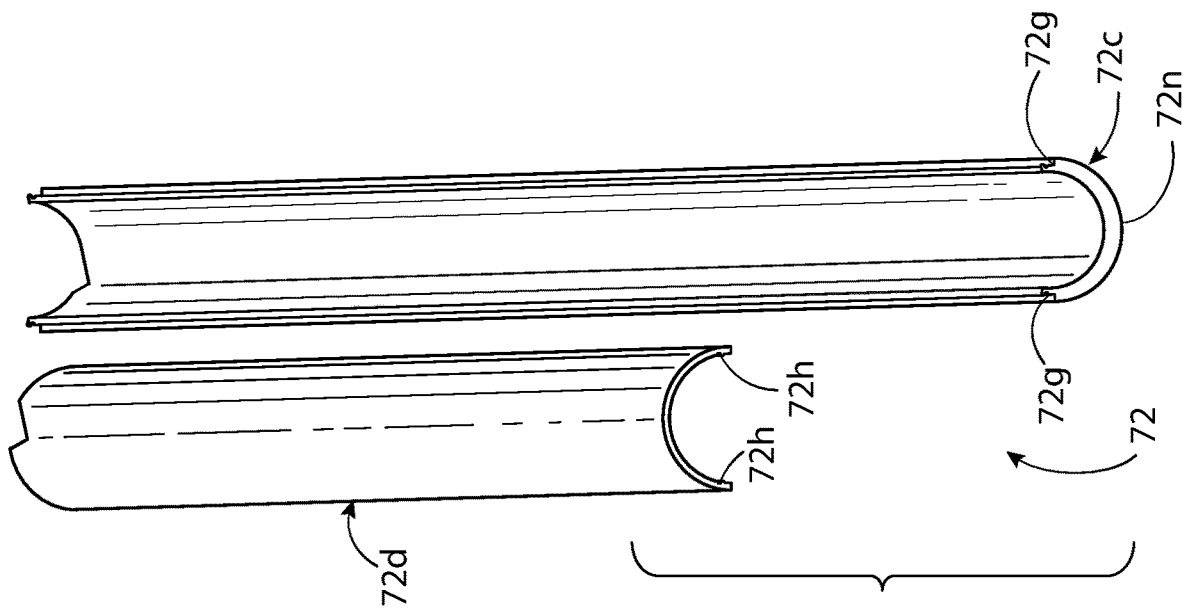


FIG. 26

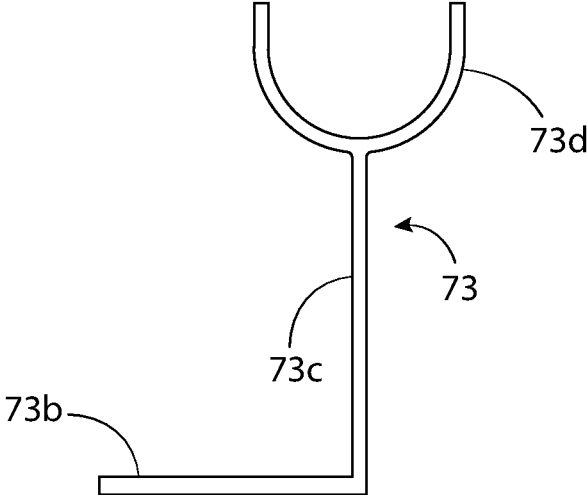


FIG. 28

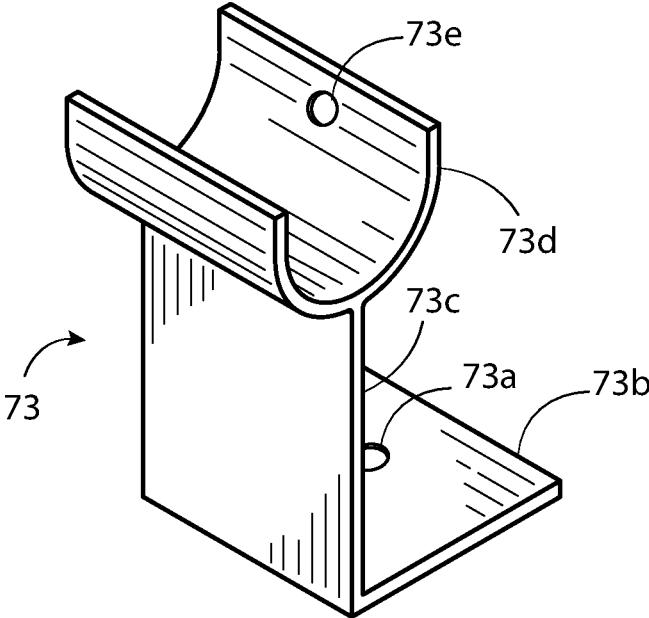


FIG. 29

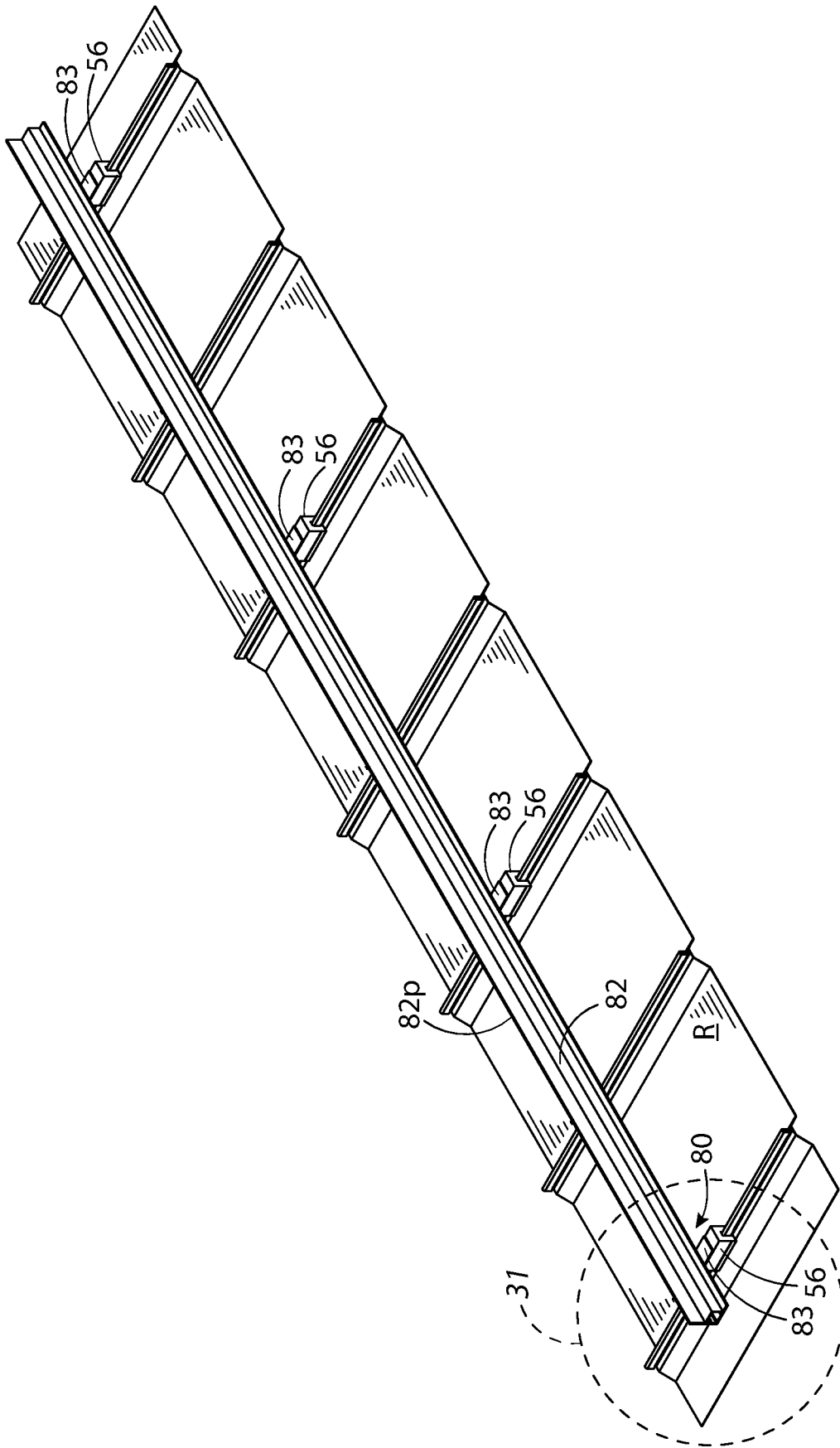


FIG. 30

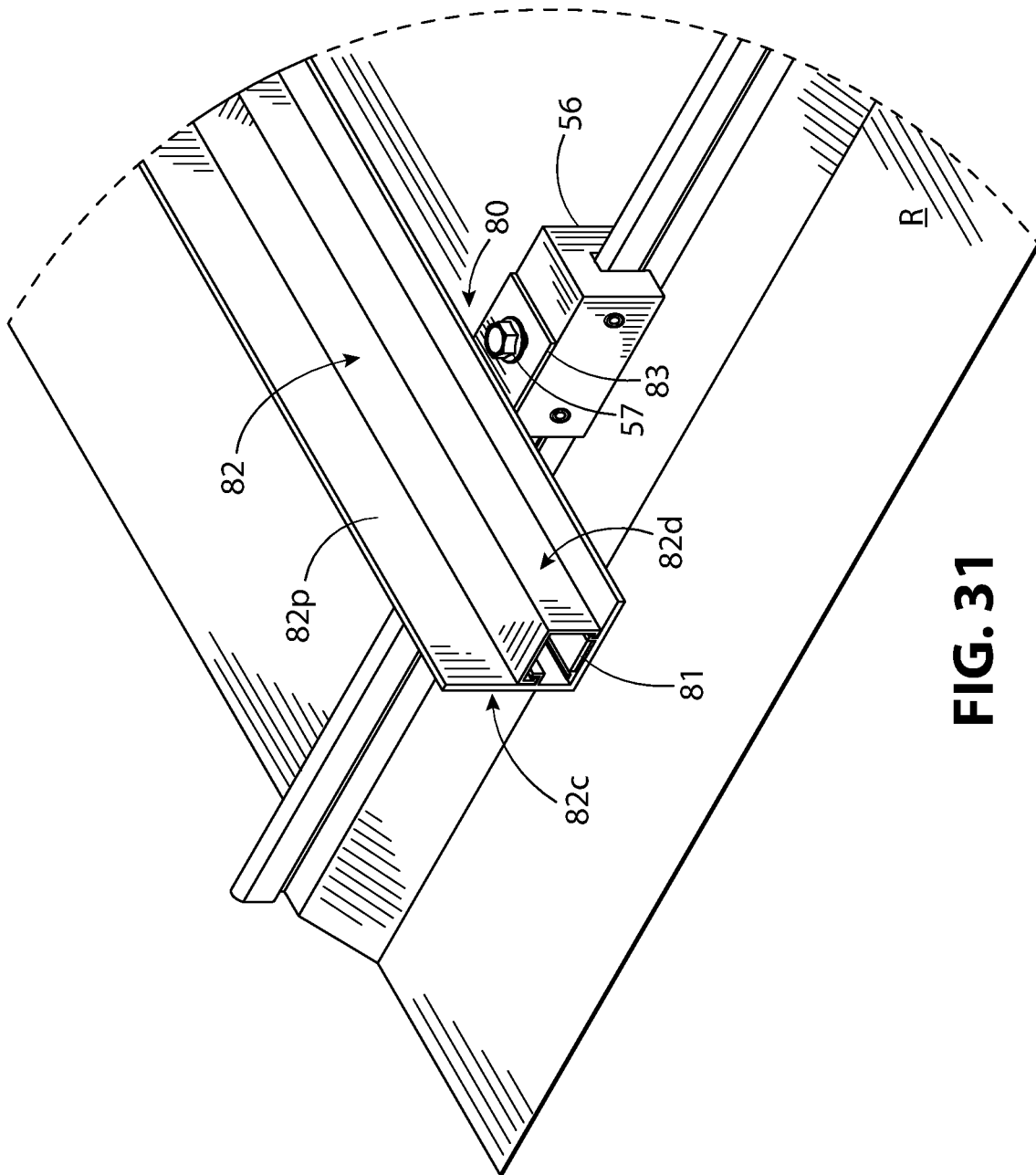


FIG. 31

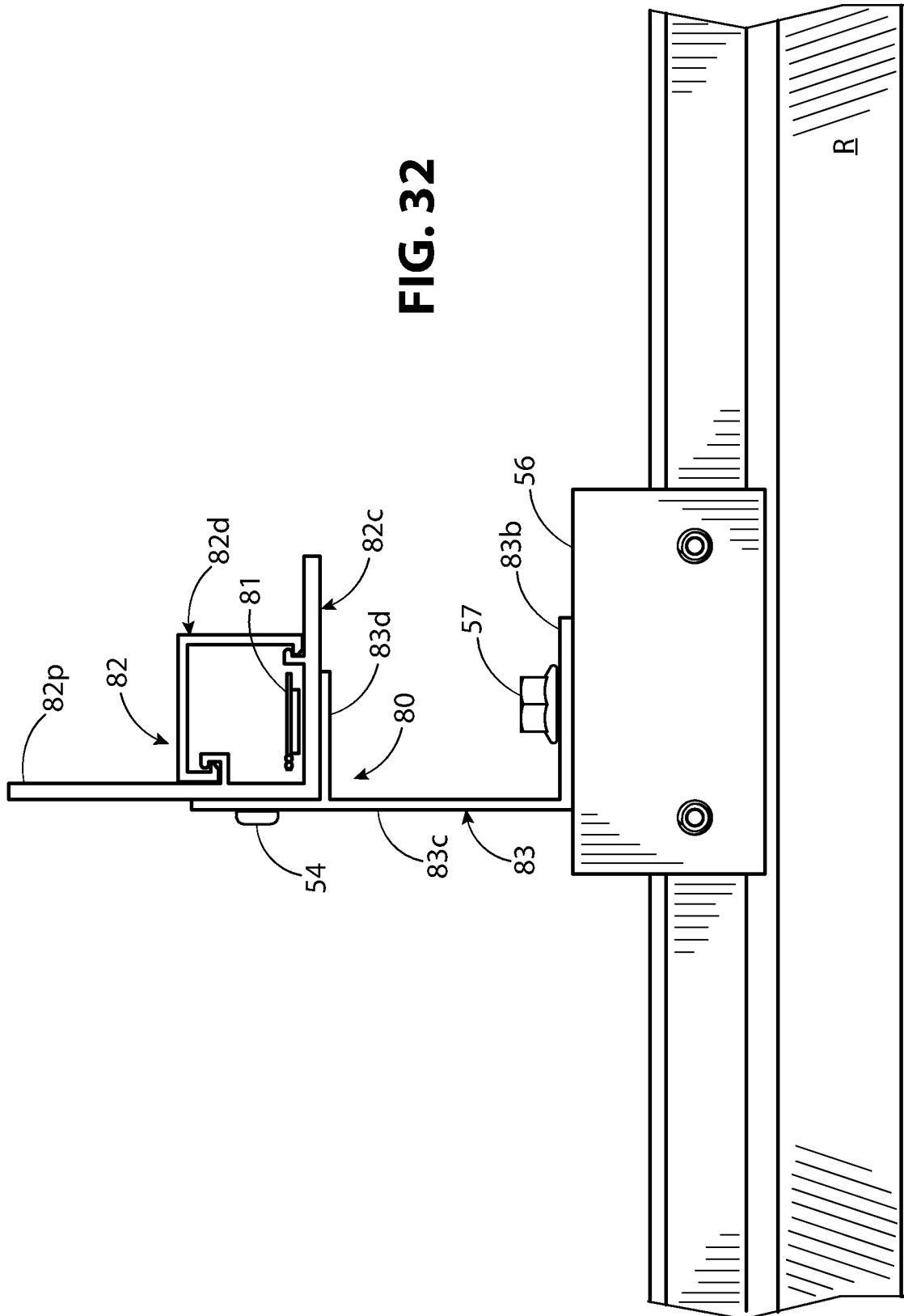


FIG. 32

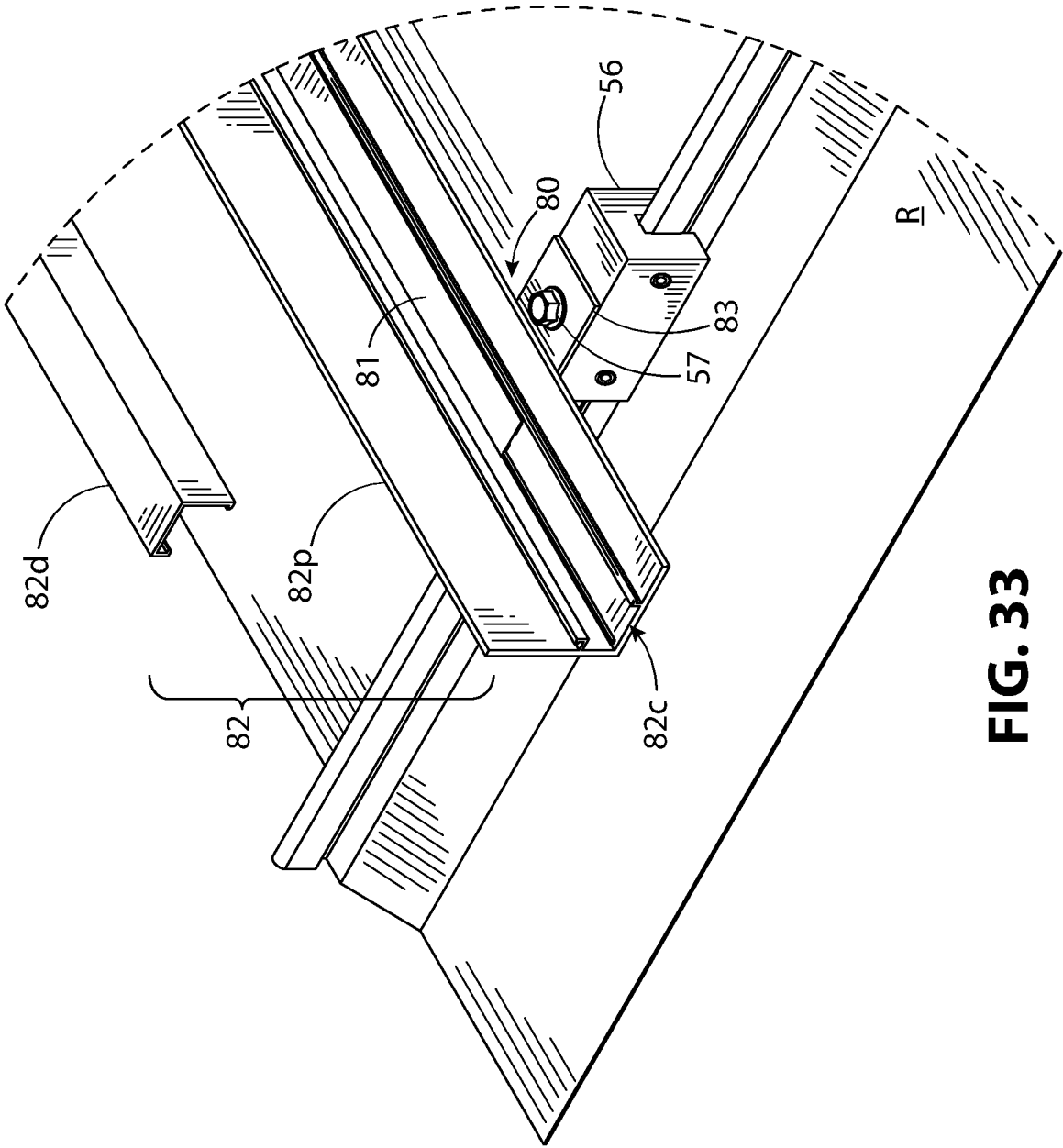


FIG. 33

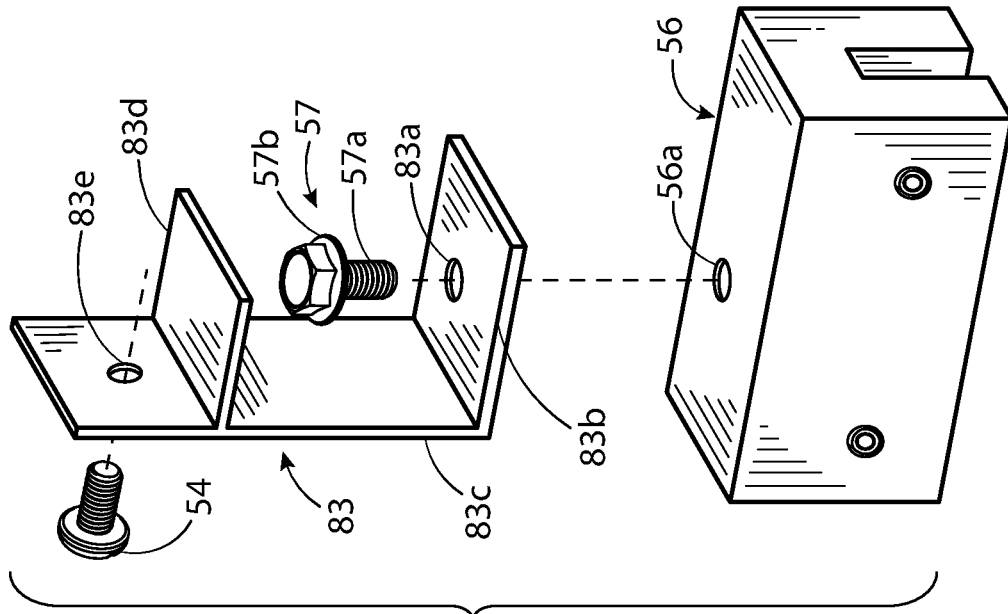


FIG. 35

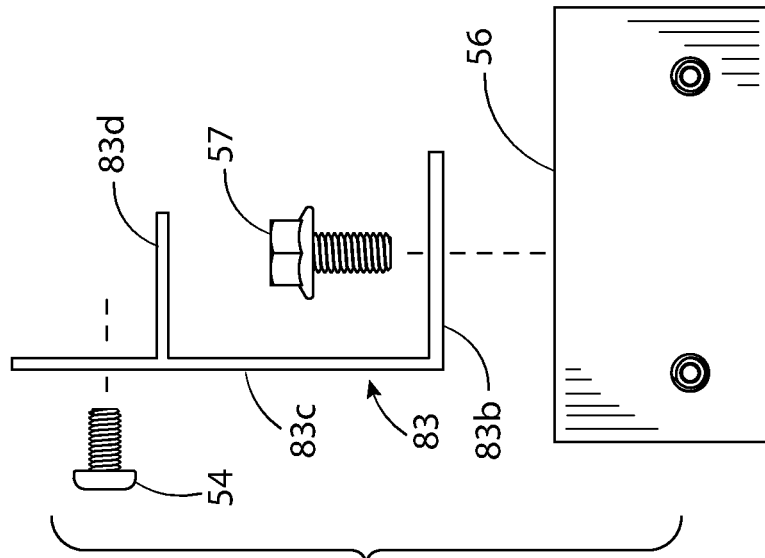


FIG. 34

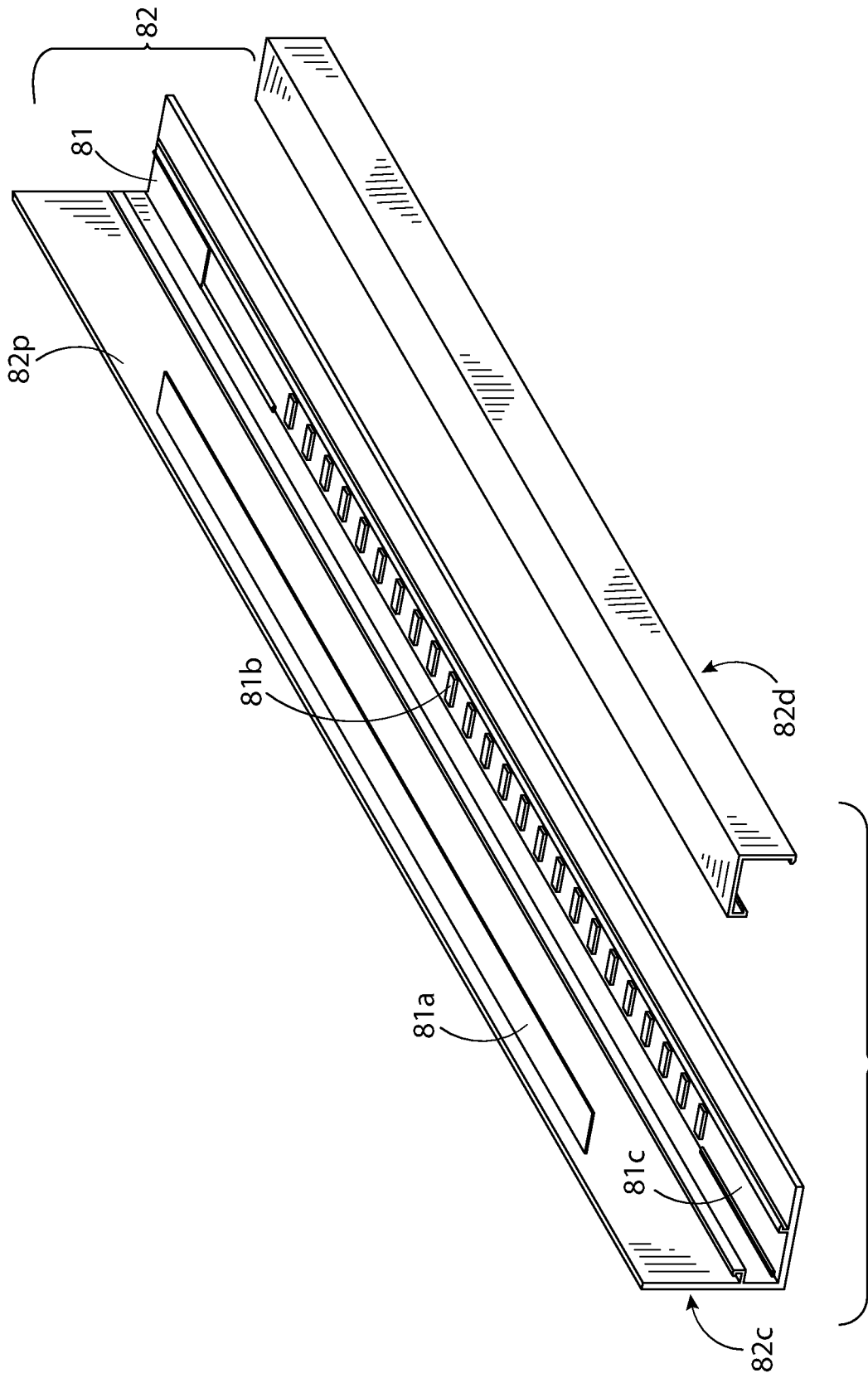
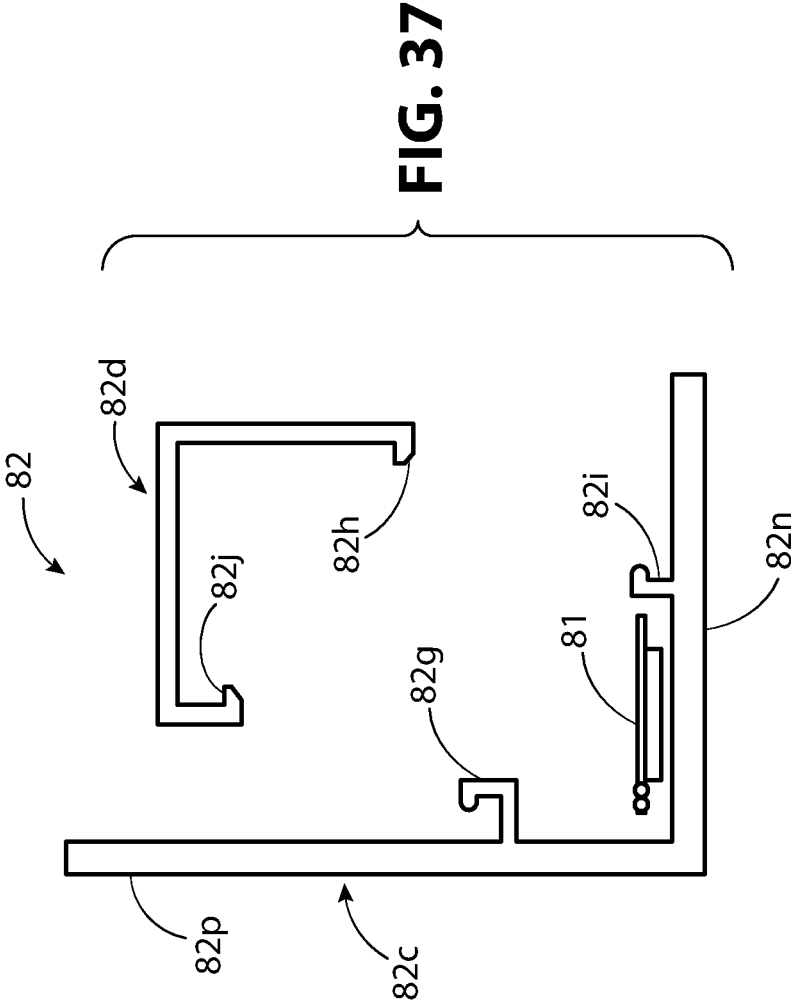


FIG. 36



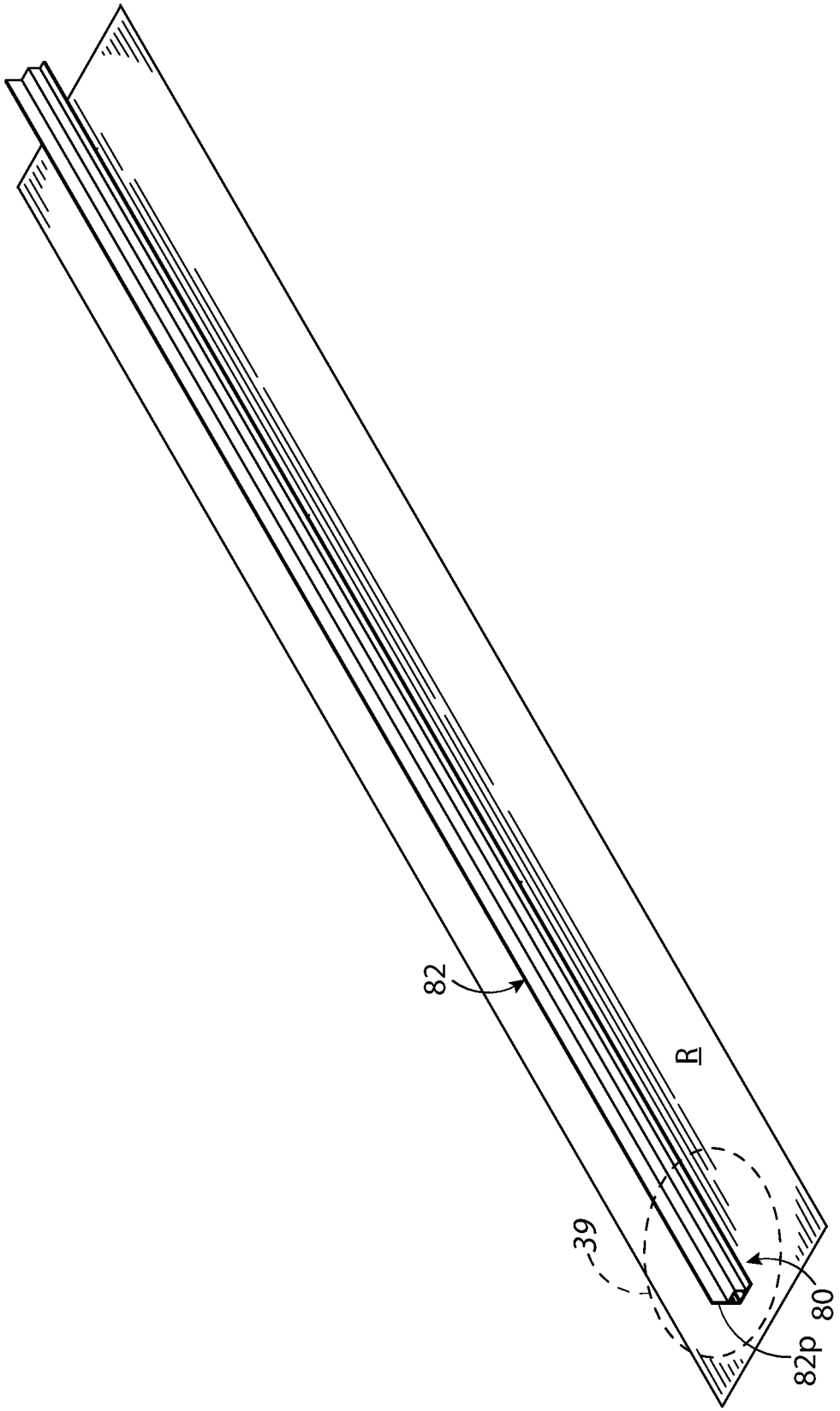


FIG. 38

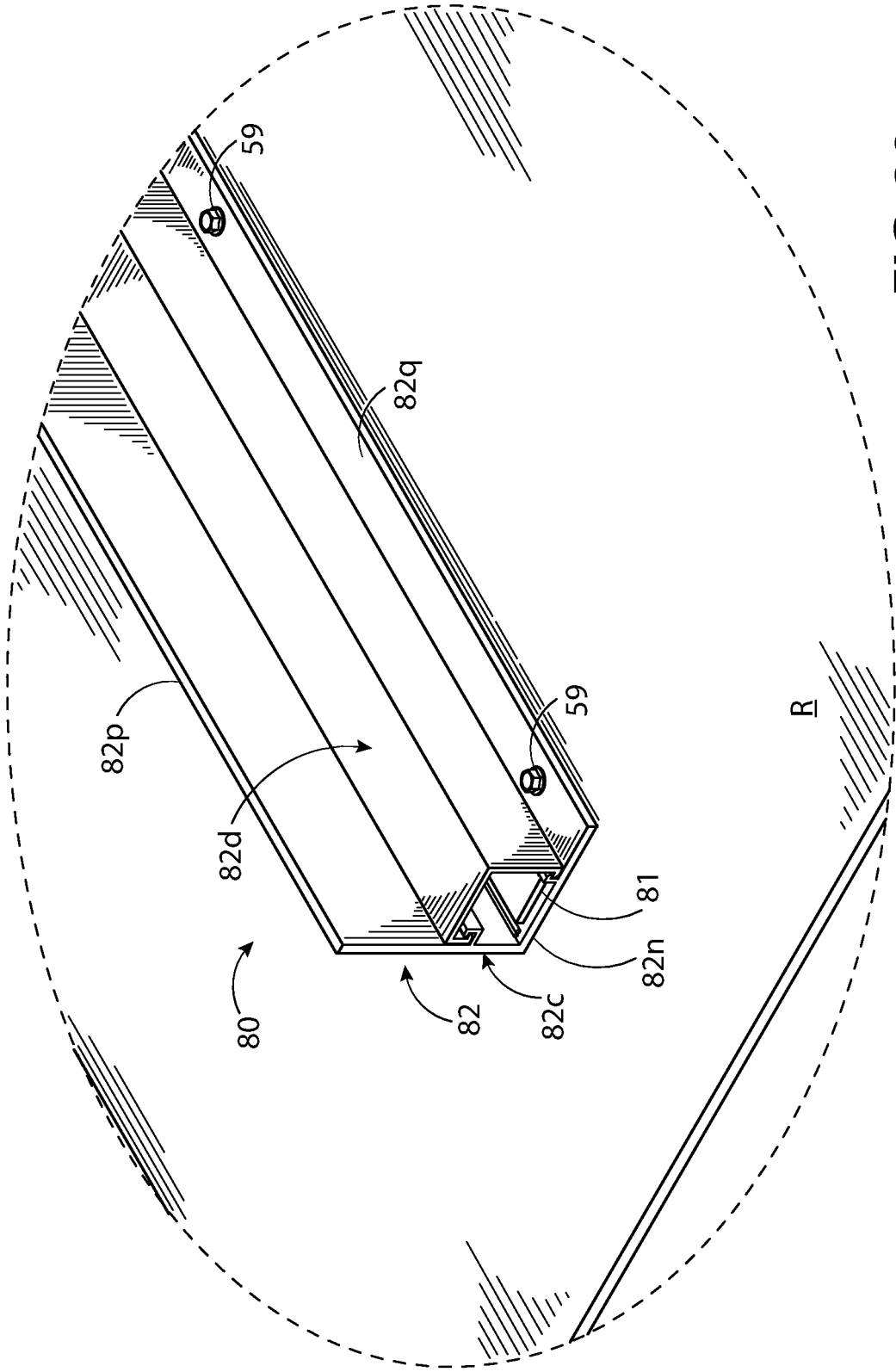


FIG. 39

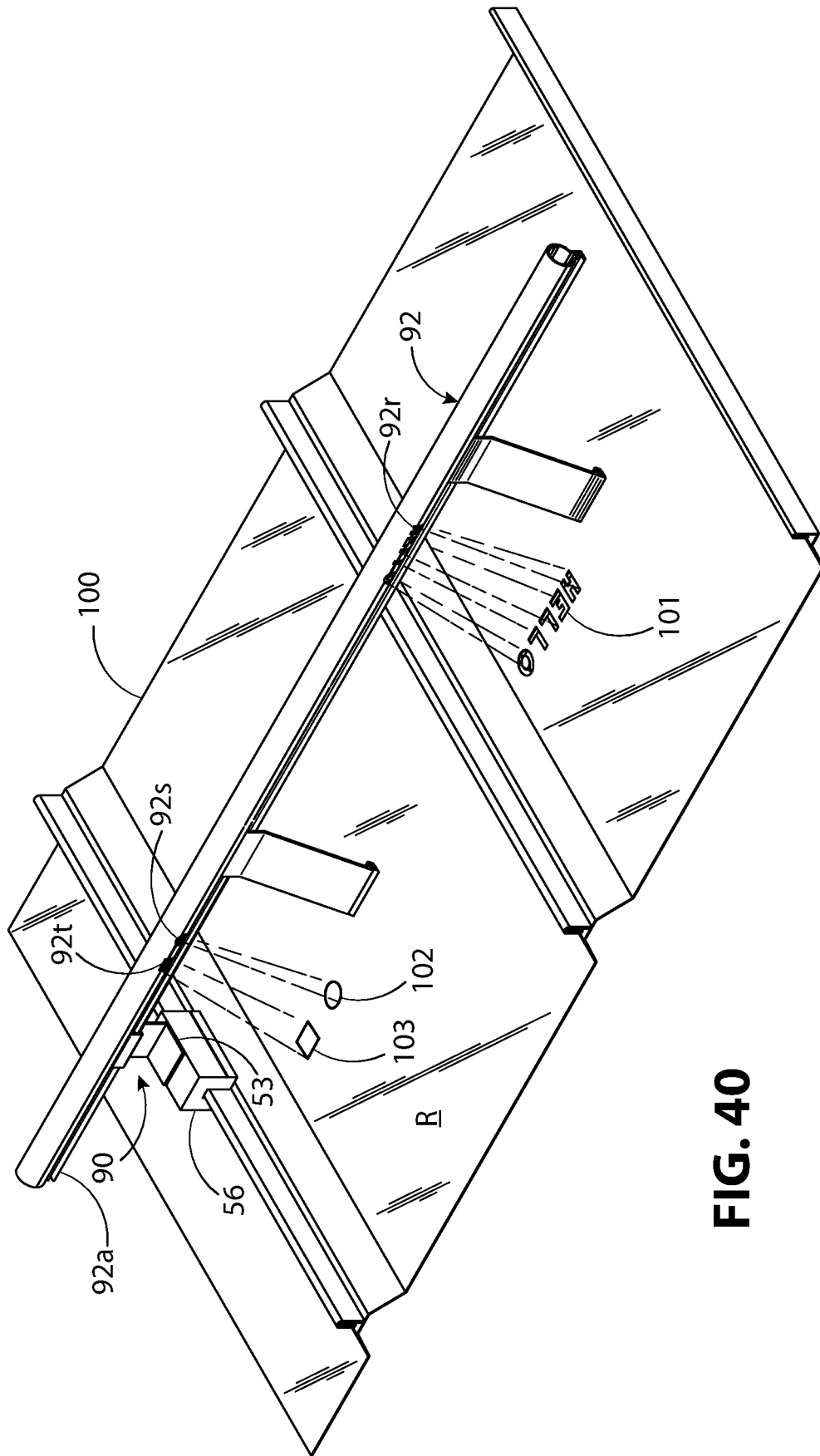


FIG. 40

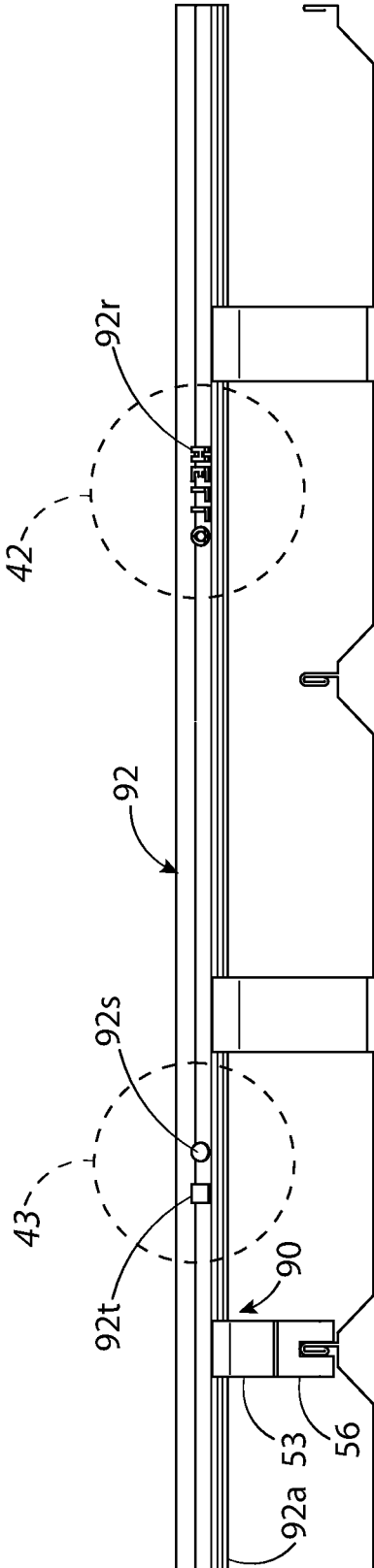


FIG. 41

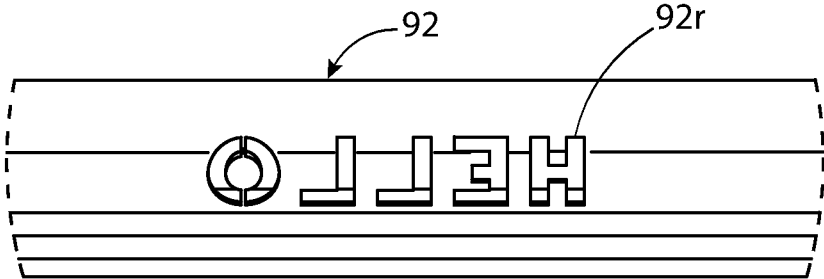


FIG. 42

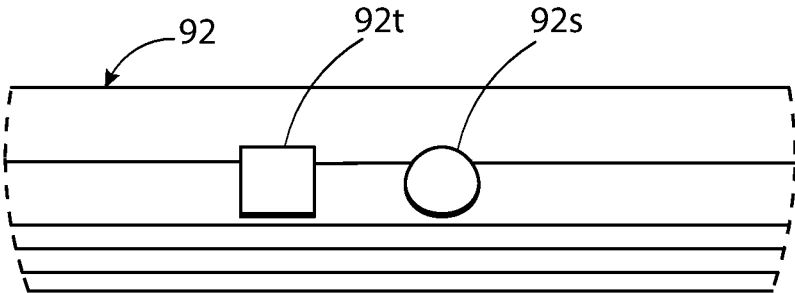


FIG. 43

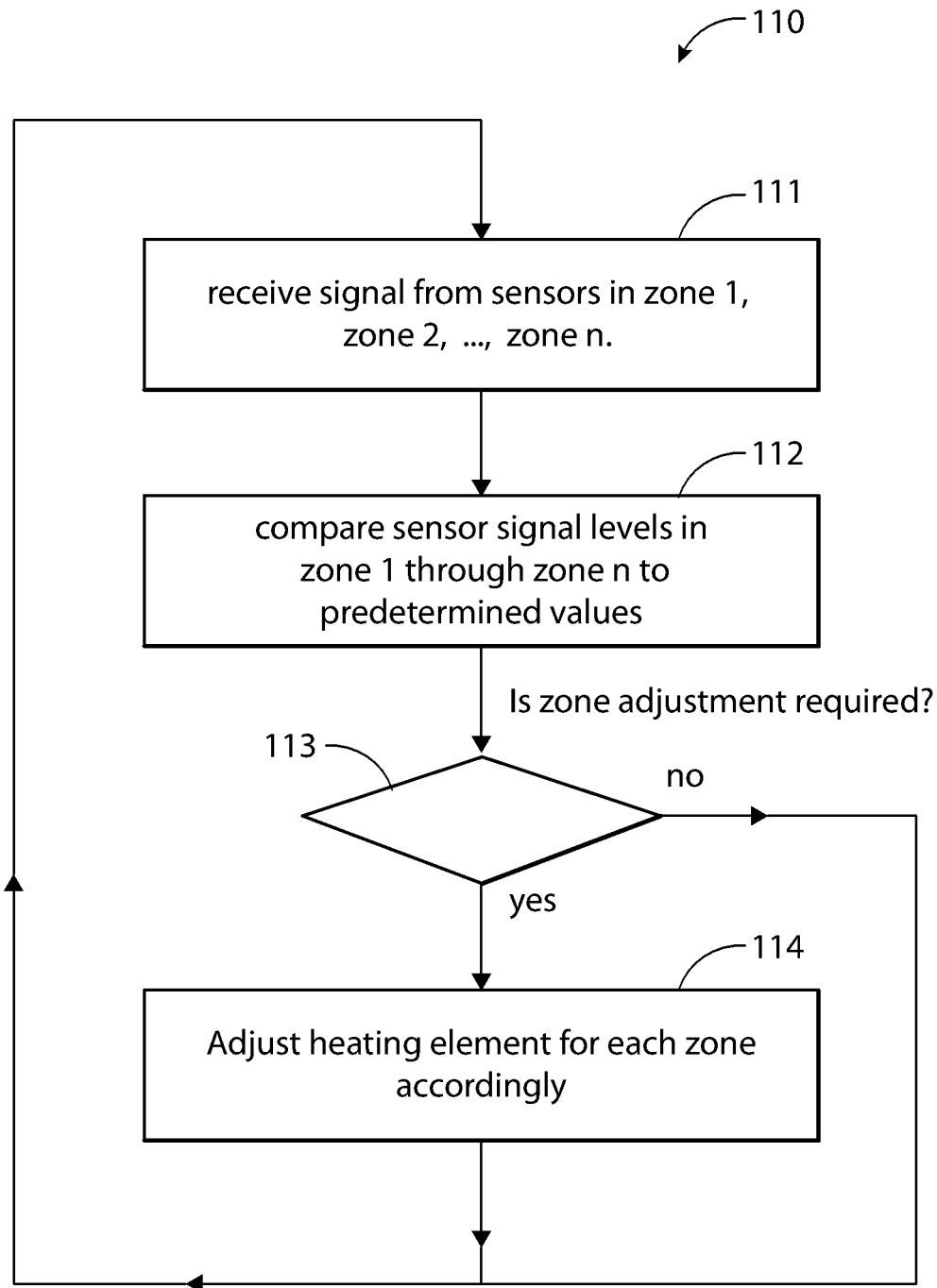


FIG. 44

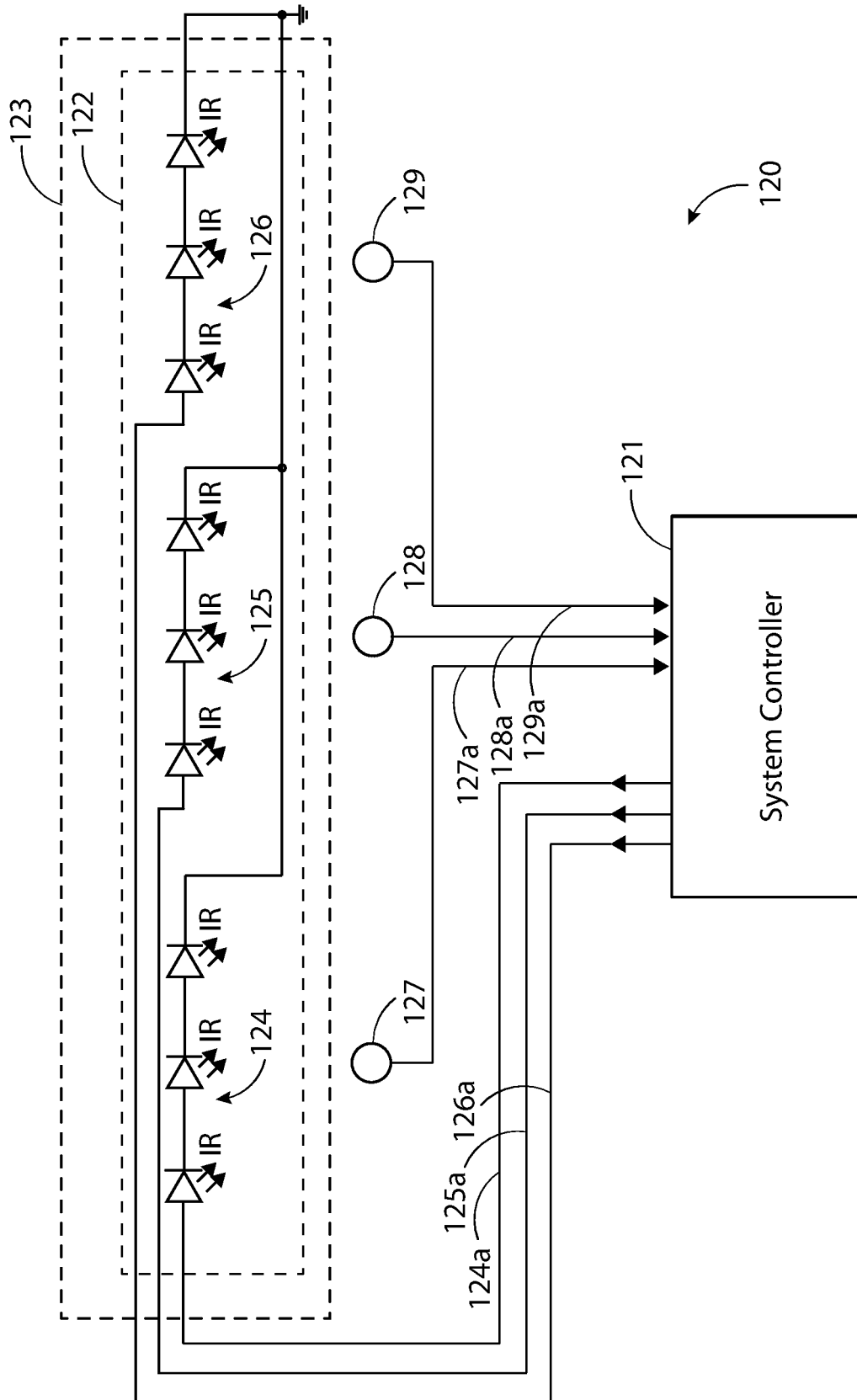


FIG. 45