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(54) **Mounting bracket for slide assembly**

Befestigungsklammer für eine Schiebeanordnung

Support de montage pour ensemble glissière

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Description

FIELD OF THE INVENTION

[0001] The present invention relates to a mounting bracket, and more particularly, to a mounting bracket for a slide assembly.

BACKGROUND OF THE INVENTION

[0002] U.S. Patent No. 7,281,694 B2 to Allen et al. discloses a mounting bracket having a side plate, an end plate, a base member, a pair of pins, an abutment member and an action mechanism, wherein the abutment member has a free end. The pins are installed to the end plate of the mounting bracket, and the base member is connected to the side plate. The abutment member is fixed to the base member, and the action mechanism extends through the base member and contacts the abutment member. When the pins are installed to the holes of a post of a rack, the abutment member is deformed to allow the post of the rack to pass therethrough and abuts against the post of the rack, so as to form an enclosed room with the pins.

[0003] However, the abutment member utilized to abut against the rack and disclosed by Allen et al. is a metal resilient plate which lacks sufficient strength and may affect the stability of installation of the mounting bracket to the rack.

[0004] The present invention intends to provide a mounting bracket for a slide assembly such that the slide assembly is easily installed to a rack or removed from a rack by the mounting bracket. The mounting bracket is firmly connected to the rack. Another example of a prior art document having a known mounting bracket for a slide assembly is disclosed in US 2008/0067907 A1.

SUMMARY OF THE INVENTION

[0005] The present invention relates to a mounting bracket for a slide assembly and comprises a side wall, an end wall substantially perpendicular to the side wall, at least one installation member connected to the end wall, a stop pivotably connected to the side wall and having a first portion and a middle portion which is connected to the first portion, the middle portion having a first end portion, and a resilient member providing a force to the stop to position the first end portion of the stop to be located corresponding to the end wall. The side wall has a face. The stop has a second portion connected to the middle portion. At least one of the first portion and the second portion has an extension section located corresponding to the face of the side wall. The extension section responds to the force of the resilient member and abuts against the face of the side wall.

[0006] Preferably, the face of the side wall has a contact member. A room is defined by the contact member and the face so that the resilient member is partially inserted into the room.

[0007] Preferably, the contact member has a contact portion. The resilient member has a bent portion which contacts the contact portion of the contact member.

[0008] Preferably, the contact member has a contact portion. The resilient member has two bent portions respectively located on two ends thereof. One of the two bent portions contacts the contact portion of the contact member.

[0009] Preferably, the middle portion of the stop has a side plate which is substantially perpendicular to the middle portion.

[0010] Preferably, the side wall has a first window which is located adjacent to the end wall. The first end portion of the stop is partially inserted into the first window by an external force. The present invention also provides a slide assembly according to claim 7. Preferably, the face of the side wall has a contact member. A room is defined by the contact member and the face so that the resilient member is partially inserted into the room. The contact member has a contact portion. The resilient member has a bent portion which contacts the contact portion of the contact member.

[0011] Preferably, the resilient member has a bent portion and a fork portion. The middle portion of the stop has a second end portion. The bent portion contacts the side wall. The fork portion contacts the second end portion of the stop. The present invention also provides a slide assembly for being installed to a rack according to claim 10. The primary object of the present invention is to provide a mounting bracket for a slide assembly. The slide assembly is easily installed to or removed from a rack by the mounting bracket. The installation member is securely connected to the rack.

[0012] The present invention will become more obvious from the following description when taken in connection with the accompanying drawings which show, for purposes of illustration only, a preferred embodiment in accordance with the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013]

FIG. 1 is a schematic view to show that the mounting bracket of the present invention is installed to a rack;

FIG. 2 is an exploded view to show the mounting bracket of the present invention;

FIG. 3A is a schematic view to show the mounting bracket of the present invention;

FIG. 3B is a schematic view to show the stop of the mounting bracket and the resilient member of the present invention;

FIG. 4 is an end view to show that the mounting bracket of the present invention is installed to the rack;

FIG. 5 is an end view to show the first action to remove the mounting bracket of the present invention

from the rack;

FIG. 6 is an end view to show the second action to remove the mounting bracket of the present invention from the rack;

FIG. 7 is a schematic view to show the second embodiment of the mounting bracket of the present invention; and

FIG. 8 is a schematic view to show the third embodiment of the mounting bracket of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0014] Referring to FIG. 1, the present invention comprises a rack 10, a first slide assembly 12, a second slide assembly 14 and a chassis 16. The rack 10 comprises a first post 18, a second post 20, a third post 22 and a fourth post 24. Each of the first post 18, the second post 20, the third post 22, and the fourth post 24 has a plurality of holes 26. The first slide assembly 12 is connected between the first and second posts 18, 20 of the rack 10. The second slide assembly 14 is connected between the third and fourth posts 22, 24 of the rack 10. The first and second slide assemblies 12, 14 are parallel to each other. The chassis 16 is installed between the first and second slide assemblies 12, 14.

[0015] The first and second slide assemblies 12, 14 have the same structure and are located symmetrically with each other. Each of the first and second slide assemblies 12, 14 comprises a first rail 28, a second rail 30, a third rail 32, a first mounting bracket 34, and a second mounting bracket 36. In the following, the second slide assembly 14 is used as an illustration; wherein, the first rail 28 has a first end 38 and a second end 40 which is located corresponding to the first end 38. The second rail 30 is slidably connected to the first rail 28. The third rail 32 is slidably connected to the second rail 30. The first mounting bracket 34 is connected adjacent to the first end 38 of the first rail 28 and is installed to the third post 22 of the rack 10. The second mounting bracket 36 is connected adjacent to the second end 40 of the first rail 28 and is installed to the fourth post 24 of the rack 10.

[0016] FIG. 2 shows that the first mounting bracket 34 has a side wall 42, an end wall 44, a stop 46, a resilient member 48 and at least one installation member 50. The side wall 42 has a top wall 52, a bottom wall 54 and a face 56 which is substantially connected between the top wall 52 and the bottom wall 54 perpendicularly. The face 56 has a first window 60 and a second window 62, wherein a contact member 58 protrudes from the face 56 and toward a direction opposite to the top and bottom walls 52, 54. A difference of height is formed between the contact member 58 and the face 56, so that a room 66 is defined between the contact member 58 and the face 56. The contact member 58 has a contact portion 64 which is located adjacent to the second window 62. The first window 60 is located close to the end of the side wall 42 from which the end wall 44 extends. The end wall 44 is located close to the first window 60 and substantially perpendicularly to the face 56 of the side wall 42. The end wall 44 has at least one positioning hole 68. In one embodiment of the present invention, the side wall 42 has two lugs 61 and two supports 63, wherein the lugs 61 protrude from the top wall 52 and the bottom wall 54 respectively and extend toward the protruding direction of the contact member 58. The two lugs 61 are located close to two sides of the second window 62. Each of the two lugs 61 has a hole 65, and the holes 65 of the two lugs 61 are located corresponding to each other. The two supports 63 are located between the two lugs 61. Each of the two supports 63 has an arc concave 67 located corresponding to the holes 65 of the two lugs 61. The two supports 63 extend and protrude from the edge of the second window 62. The stop 46 has a first portion 70, a second portion 72 and a middle portion 74 which is connected to the first and second portions 70, 72. The first and second portions 70, 72 are located symmetrically with each other. Each of the first and second portions 70, 72 has a first side 76, a second side 78 and a connection wall 80 which is connected between the first and second sides 76, 78. Each of the first and second sides 76, 78 has a hole 77. The two respective holes 77 of the first and second sides 76, 78 are located symmetrically with each other. The first side 76 has an extension section 82. The middle portion 74 has a first end portion 84 and a second end portion 86 which is located corresponding to the first end portion 84. The resilient member 48 has a bent portion 88 and a fork portion 90. The bent portion 88 is located corresponding to the contact portion 64 of the contact member 58. The fork portion 90 has a recessed area 92 located corresponding to the second end portion 86 of the middle portion 74 of the stop 46. The at least one installation member 50 is located corresponding to the positioning hole 68 of the end wall 44. A pivotal member 47 is configured to the holes 77 on the first and second sides 76, 78 of the first and second portions 70, 72 of the stop 46, the holes 65 of the lugs 61 of the side wall 42, the arc concaves 67 of the supports 63 of the side wall 42. It is noted that the first and second mounting brackets 34, 36 have the same structure, the second mounting bracket 36 needs not to be described in detail.

[0017] FIGS. 3A and 3B show that the stop 46 is pivotably connected to the side wall 42 by extending the pivotal member 47 through the holes 77 on the first and second sides 76, 78 of the first and second portions 70, 72 of the stop 46, the holes 65 of the lugs 61 of the side wall 42, the arc concaves 67 of the supports 63 of the side wall 42. The resilient member 48 is partially inserted into the room 66 between the face 56 of the side wall 42 and the contact member 58. The bent portion 88 of the resilient member 48 contacts the contact portion 64 of the contact member 58, and the fork portion 90 of the resilient member 48 contacts the second end portion 86 of the middle portion 74 of the stop 46. The stop 46 is applied by the force from the resilient member 48, and

the extension section 82 of the stop 46 abuts against the face 56 of the side wall 42 to maintain the stop 46 at a pre-set position. The at least one installation member 50 is fixed to the end wall 44. When in assembling, the first mounting bracket 34 partially extends through the hole 26 of the third post 22, from outside toward inside, and is positioned by the at least one installation member 50, so that the first mounting bracket 34 is installed to the third post 22, and the first end portion 84 of the middle portion 74 of the stop 46 is located corresponding to the third post 22. In detail, a surface 83 of the middle portion 74 of the stop 46 of the first mounting bracket 34 first contacts the third post 22, and a force F1 is applied to let the stop 46 overcome the force of the resilient member 48 and swing an angle. The at least one installation member 50 is aimed to the hole 26 of the third post 22, and a force F2 is applied to the installation member 50 which then partially extends through the hole 26. In the meanwhile, the stop 46 is moved away from the third post 22, and returns to its pre-set position by the force released from the resilient member 48. Therefore, the first mounting bracket 34 is installed to the third post 22.

[0018] FIG. 4 shows that the first mounting bracket 34 is installed to the third post 22, the installation member 50 of the first mounting bracket 34 extends through the hole 26 of the third post 22, and by being located adjacent to the third post 22, the first end portion 84 of the middle portion 74 of the stop 46 of the first mounting bracket 34 blocks the way that the installation member 50 is removed from the third post 22. Therefore, the installation member 50 is installed to the third post 22 by the stop 46 of the first mounting bracket 34. By the blocking of the stop 46, the installation member 50 does not remove from the third post 22.

[0019] FIGS. 5 and 6 show the operation of removing the first mounting bracket 34 from the third post 22. First, a force F3 is applied to the middle portion 74 of the stop 46 of the first mounting bracket 34, and overcomes the force from the resilient member 48, so that the stop 46 pivots an angle relative to the pivotal member 47. Preferably, the first end portion 84 of the middle portion 74 of the stop 46 is partially inserted into the first window 60 to remove the blocking of the stop 46 from the third post 22, so that the installation member 50 of the first mounting bracket 34 can be removed from the hole 26 of the third post 22, and the first mounting bracket 34 is removed from the third post 22.

[0020] FIG. 7 shows the second embodiment of the present invention, wherein the stop 200 of the first mounting bracket 34 can only comprise the first portion 202 and the middle portion 204. The middle portion 204 has a side plate 206 to fix the resilient member 48.

[0021] FIG. 8 shows the third embodiment of the present invention, wherein the resilient member 300 has two bent portions 302 at two ends thereof respectively. The two bent portions 302 respectively contact the contact member 58 of the first mounting bracket 34 and the second end portion 86 of the stop 46.

Claims

1. A mounting bracket for a slide assembly comprising:

   a side wall (42), an end wall (44) substantially perpendicular to the side wall (42), and at least one installation member (50) connected to the end wall (44); a stop (46) is pivotably connected to the side wall (42) and has a first portion (70) and a middle portion (74) connected to the first portion (70), the middle portion (74) has a first end portion (84), and a resilient member (48) provides a force to the stop (46) to position the first end portion (84) of the stop (46) to be located corresponding to the end wall (44), the side wall (42) has a face (56), the stop (46) having a second portion (72) connected to the middle portion (74), **characterized in that** at least one of the first portion (70) and the second portion (72) having an extension section (82) located corresponding to the face (56) of the side wall (42), the extension section (82) responding to the force of the resilient member (48) and abutting against the face (56) of the side wall (42).

2. The mounting bracket as claimed in claim 1, wherein the face (56) of the side wall (42) has a contact member (58), wherein a room (66) is defined by the contact member (58) and the face (56) so that the resilient member (48) is partially inserted into the room (66).

3. The mounting bracket as claimed in claim 2, wherein the contact member (58) has a contact portion (64), the resilient member (48) having a bent portion (88) which contacts the contact portion (64) of the contact member (58).

4. The mounting bracket as claimed in claim 2, wherein the contact member (58) has a contact portion (64), the resilient member (48) having two bent portions (88) respectively located on two ends thereof, one of the two bent portions (88) contacting the contact portion (64) of the contact member (58).

5. The mounting bracket as claimed in claim 1, wherein the middle portion (204) of the stop (200) has a side plate (206) which is substantially perpendicular to the middle portion (204).

6. The mounting bracket as claimed in claim 1, wherein the side wall (42) has a first window (60) which is located adjacent to the end wall (44), the first end portion (84) of the stop (46) being partially inserted into the first window (60) by an external force.

7. A slide assembly comprising:

a first rail (28) having a first end (38) and a second end (40) which is located corresponding to the first end (38), a second rail (30) slidably connected to the first rail (28), a third rail (32) slidably connected to the second rail (30); a first mounting bracket (34) is connected adjacent to the first end (38) of the first rail (28), a second mounting bracket (36) is connected adjacent to the second end (40) of the first rail (28), and at least one of the first mounting bracket (34) and the second mounting bracket (36) is a mounting bracket according to claim 1.

8. The slide assembly as claimed in claim 7, wherein the face (56) of the side wall (42) has a contact member (58), wherein a room (66) is defined by the contact member (58) and the face (56) so that the resilient member (48) is partially inserted into the room (66), the contact member (58) having a contact portion (64), the resilient member (48) having a bent portion (88) which contacts the contact portion (64) of the contact member (58).

9. The slide assembly as claimed in claim 7, wherein the resilient member (48) has a bent portion (88) and a fork portion (96), the middle portion (74) of the stop (46) having a second end portion (86), the bent portion (88) contacting the side wall (42), the fork portion (96) contacting the second end portion (86) of the stop (46).

10. A slide assembly according to claim 7 for being installed to a rack (10) which has at least two posts (22, 24), each post (22/24) having a plurality of holes (26); **characterized in that** the first mounting bracket (34) is adapted to be installed to one of the posts (22) of the rack (10), the second mounting bracket (36) is adapted to be installed to the other one of the posts (24) of the rack (10), the at least one installation member (50) is adapted to be installed to one of the holes (26), and at least one of the posts (22/24) is located between the at least one installation member (50) and the stop (46).

Patentansprüche

1. Ein Montagewinkel für einen Schlitten, umfassend:

eine Seitenwand (42), eine Stirnwand (44), die im Wesentlichen senkrecht zur Seitenwand (42) angeordnet ist, und mindestens ein Installationsglied (50), das an der Stirnwand (44) befestigt ist; ein Anschlag (46) drehgelenkig an der Seitenwand (42) befestigt und mit einem ersten Teil (70) und mit einem mittleren Teil (74), der am ersten Teil (70) befestigt ist, gebildet ist; der mittlere Teil (74) einen ersten Endabschnitt (84) aufweist; mit einer Feder (48) für den Anschlag (46) zum Positionieren des ersten Endabschnitts (84) des Anschlags (46), der entsprechend der Stirnwand (44) angeordnet werden muss, eine Kraft erzeugt wird; die Seitenwand (42) eine Seite (56) aufweist; der Anschlag (46) mit einem zweiten Teil (72) am mittleren Teil (74) befestigt ist; **dadurch gekennzeichnet, dass** mindestens einer der ersten Teile (70) und der zweiten Teile (72) mit einem Erweiterungsabschnitt (82) entsprechend der Seite (56) der Seitenwand (42) angeordnet sind; der Erweiterungsabschnitt (82) auf die Kraft der Feder (48) reagiert und an die Seite (56) der Seitenwand (42) anstößt.

2. Der Montagewinkel nach Anspruch 1, worin die Seite (56) der Seitenwand (42) mit einem Kontaktglied (58) gebildet ist; mit dem Kontaktglied (58) und der Seite (56) ein Hohlraum (66) gebildet wird, so dass die Feder (48) teilweise in den Hohlraum (66) eingeführt werden kann.

3. Der Montagewinkel nach Anspruch 2, worin das Kontaktglied (58) einen Kontaktteil (64) aufweist, die Feder (48) mit einem gebogenen Abschnitt (88) gebildet ist, der mit dem Kontaktteil (64) des Kontaktglieds (58) in Kontakt kommt.

4. Der Montagewinkel nach Anspruch 2, worin das Kontaktglied (58) mit einem Kontaktteil (64) gebildet ist; die Feder (48) zwei gebogene Abschnitte (88) aufweist, wovon je einer an einem der beiden Enden der Feder (48) gebildet ist; einer der zwei gebogenen Abschnitte (88) mit dem Kontaktteil (64) des Kontaktglieds (58) in Kontakt kommt.

5. Der Montagewinkel nach Anspruch 1, worin der mittlere Teil (204) des Anschlags (200) mit einer Seitenplatte (206) gebildet ist, die im Wesentlichen senkrecht zum mittleren Teil (204) angeordnet ist.

6. Der Montagewinkel nach Anspruch 1, worin die Seitenwand (42) ein erstes Fenster (60) aufweist, das angrenzend zur Stirnwand (44) angeordnet ist; der erste Endabschnitt (84) des Anschlags (46) mit einer äußeren Kraft teilweise in das erste Fenster (60) eingeführt wird.

7. Ein Schlitten, umfassend:

eine erste Schiene (28) mit einer ersten Endfläche (38) und einer zweiten Endfläche (40), die entsprechend der ersten Endfläche (38) angeordnet ist; eine zweite Schiene (30) gleitend an der ersten Schiene (28) befestigt ist; eine dritte Schiene (32) gleitend an der zweiten Schiene (30) befestigt ist; ein erster Montagewinkel (34)

angrenzend an die erste Endfläche (38) der ersten Schiene (28) montiert ist; ein zweiter Montagewinkel (36) angrenzend an die zweite Endfläche (40) der ersten Schiene (28) montiert ist und mindestens einer der ersten Montagewinkel (34) und der zweiten Montagewinkel (36) ein Montagewinkel nach Anspruch 1 ist.

8. Der Schlitten nach Anspruch 7, worin die Seite (56) der Seitenwand (42) mit einem Kontaktglied (58) gebildet ist; mit dem Kontaktglied (58) und der Seite (56) ein Hohlraum (66) gebildet wird, wobei die Feder (48) teilweise in den Hohlraum (66) eingeführt wird; das Kontaktglied (58) mit einem Kontaktteil (64) gebildet ist; die Feder (48) einen gebogenen Abschnitt (88) aufweist, der mit dem Kontaktteil (64) des Kontaktglieds (58) in Kontakt kommt.

9. Der Schlitten nach Anspruch 7, worin die Feder (48) einen gebogenen Abschnitt (88) und eine Gabelung (96), aufweist; der mittlere Teil (74) des Anschlags (46) einen zweiten Endabschnitt (86) aufweist; der gebogene Abschnitt (88) mit der Seitenwand (42) in Kontakt kommt; die Gabelung (96) mit dem zweiten Endabschnitt (86) des Anschlags (46) in Kontakt kommt.

10. Ein Schlitten nach Anspruch 7 zum Installieren an ein Gestell (10) der über mindestens zwei Stangen (22, 24) verfügt; jede Stange (22/24) mehrere Löcher (26) aufweist; **dadurch gekennzeichnet, dass** der erste Montagewinkel (34) zum Installieren an eine der Stangen (22) des Gestells (10) konzipiert ist; der zweite Montagewinkel (36) zum Installieren an eine andere Stange (24) des Gestells (10) konzipiert ist; das mindestens eine Installationsglied (50) zum Installieren in eines der Löcher (26) konzipiert ist; mindestens eine der Stangen (22/24) zwischen dem mindestens einen Installationsglied (50) und dem Anschlag (46) angeordnet ist.

Revendications

1. Support de montage pour un ensemble coulissant, **caractérisé par le fait qu'**il comprend :

une paroi latérale (42), une paroi d'extrémité (44) substantiellement perpendiculaire à la paroi latérale (42), et au moins un élément d'installation (50) raccordé à la paroi d'extrémité (44) ; une butée (46) est raccordée de manière pivotante à la paroi latérale (42) et présente une première partie (70) et une partie médiane (74) raccordées à la première partie (70), la partie médiane (74) présente une première partie d'extrémité (84), et un élément résilient (48) fournit une force à la butée (46) pour positionner la première partie d'extrémité (84) de la butée (46) en correspondance avec la paroi d'extrémité (44), la paroi latérale (42) présente un avant (56), la butée (46) présentant une seconde partie (72) raccordée à la partie médiane (74), **caractérisé en ce que** au moins l'une des première partie (70) et seconde partie (72) présentant une section de prolongement (82) située en correspondance avec l'avant (56) de la paroi latérale (42), la section de prolongement (82) répondant à la force de l'élément résilient (48) et prenant appui contre l'avant (56) de la paroi latérale (42).

2. Support de montage selon la revendication 1, **caractérisé par le fait que** l'avant (56) de la paroi latérale (42) présente un élément de contact (58), une chambre (66) est définie par l'élément de contact (58) et l'avant (56) de sorte que l'élément résilient (48) est partiellement inséré dans la chambre (66).

3. Support de montage selon la revendication 2, **caractérisé par le fait que** l'élément de contact (58) présente une partie de contact (64), l'élément résilient (48) présentant une partie courbée (88) qui est au contact de la partie de contact (64) de l'élément de contact (58).

4. Support de montage selon la revendication 2, **caractérisé par le fait que** l'élément de contact (58) présente une partie de contact (64), l'élément résilient (48) présentant deux parties courbées (88) respectivement situées sur deux extrémités de celui-ci, l'une des deux parties courbées (88) étant au contact de la partie de contact (64) de l'élément de contact (58).

5. Support de montage selon la revendication 1, **caractérisé par le fait que** la partie médiane (204) de la butée (200) présente une plaque latérale (206) qui est substantiellement perpendiculaire à la partie médiane (204).

6. Support de montage selon la revendication 1, **caractérisé par le fait que** la paroi latérale (42) présente une première fenêtre (60) qui est adjacente à la paroi d'extrémité (44), la première partie d'extrémité (84) de la butée (46) étant partiellement insérée dans la première fenêtre (60) par une force externe.

7. Ensemble coulissant, **caractérisé par le fait qu'**il comprend :

un premier rail (28) présentant une première extrémité (38) et une seconde extrémité (40) qui est située en correspondance avec la première extrémité (38), un deuxième rail (30) raccordé de manière coulissante au premier rail (28), un troisième rail (32) raccordé de manière coulis-

sante au deuxième rail (30) ; un premier support de montage (34) est raccordé de manière adjacente à la première extrémité (38) du premier rail (28), un second support de montage (36) est raccordé de manière adjacente à la seconde extrémité (40) du premier rail (28), et au moins l'un des premier support de montage (34) et second support de montage (36) est un support de montage selon la revendication 1.

8. Ensemble coulissant selon la revendication 7, **caractérisé par le fait que** l'avant (56) de la paroi latérale (42) présente un élément de contact (58), une chambre (66) est définie par l'élément de contact (58) et l'avant (56) de sorte que l'élément résilient (48) est partiellement inséré dans la chambre (66), l'élément de contact (58) présentant une partie de contact (64), l'élément résilient (48) présentant une partie courbée (88) qui est au contact de la partie de contact (64) de l'élément de contact (58).

9. Ensemble coulissant selon la revendication 7, **caractérisé par le fait que** l'élément résilient (48) présente une partie courbée (88) et une partie en fourche (96), la partie médiane (74) de la butée (46) présentant une seconde extrémité portion (86), la partie courbée (88) étant au contact de la paroi latérale (42), la partie en fourche (96) étant au contact de la seconde extrémité portion (86) de la butée (46).

10. Ensemble coulissant selon la revendication 7 pour être installé sur un rack (10) qui présente au moins deux montants (22, 24), chaque montant (22/24) présentant une pluralité de trous (26) ; **caractérisé en ce que** le premier support de montage (34) est adapté pour être installé sur l'un des montants (22) du rack (10), le second support de montage (36) est adapté pour être installé sur un autre montant (24) du rack (10), le ou les élément d'installation (50) sont adaptés pour être installés sur l'un des trous (26), et au moins l'un des montants (22/24) est situé entre le ou les élément d'installation (50) et la butée (46).

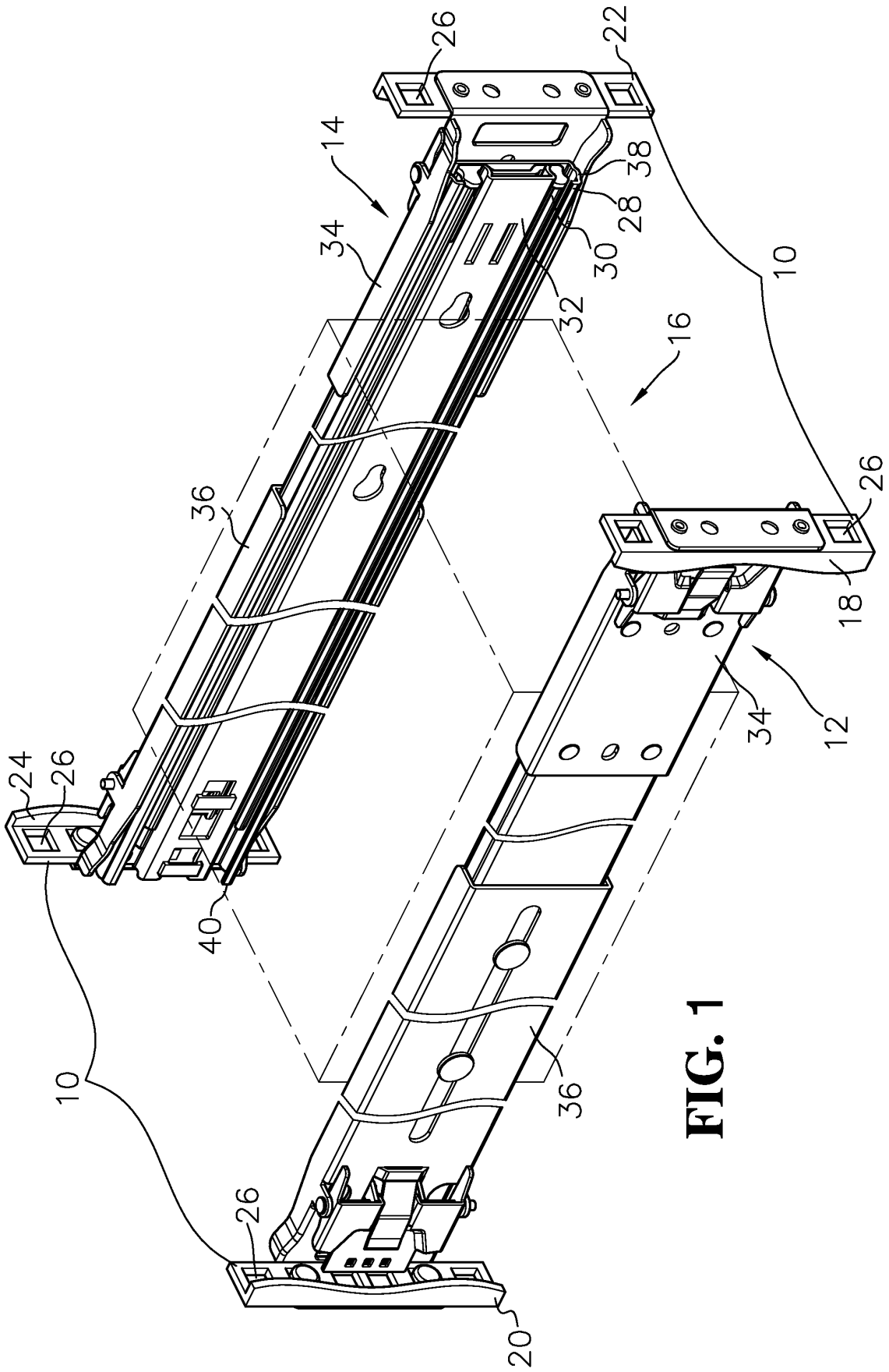


FIG. 1

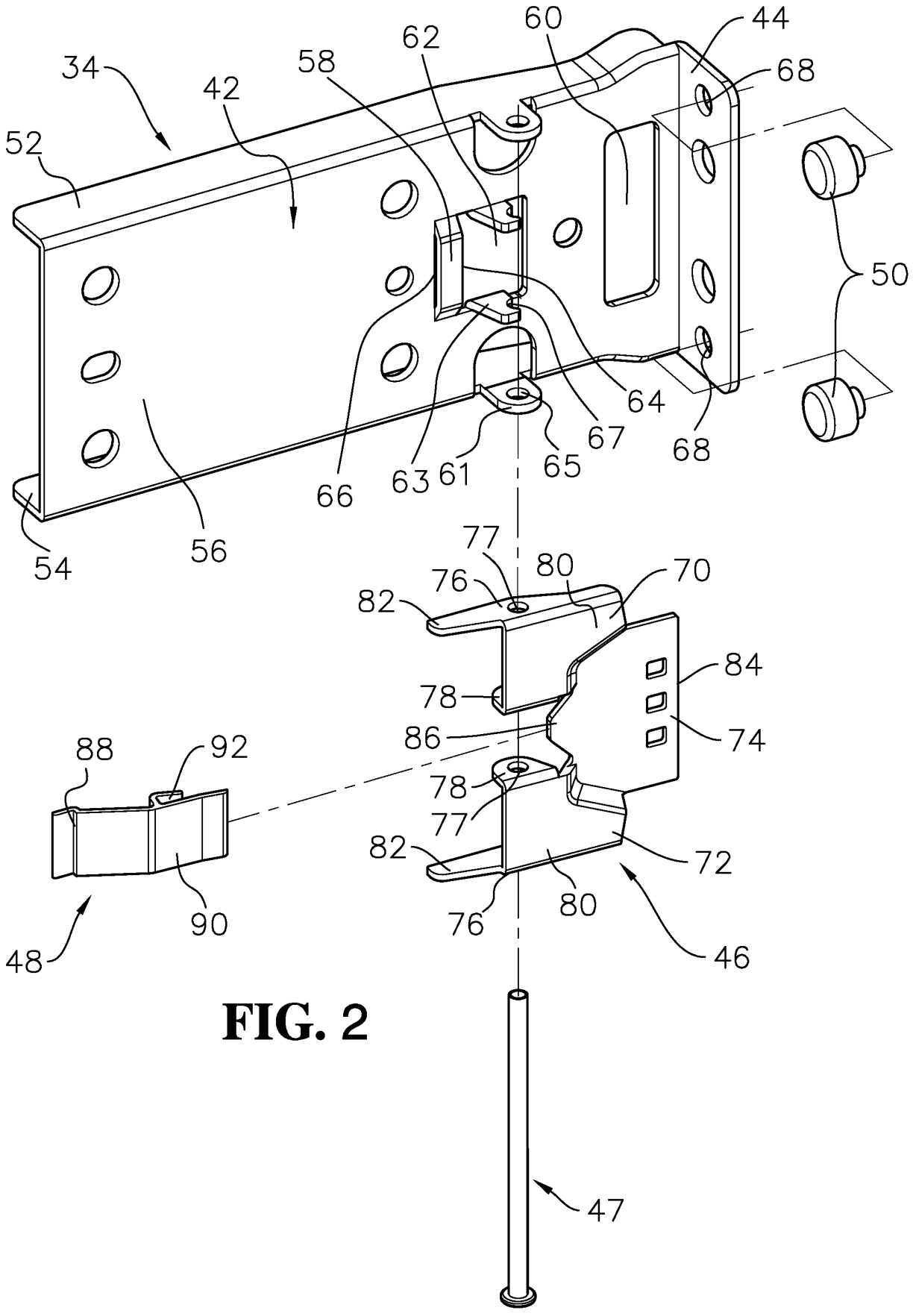

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FIG. 2

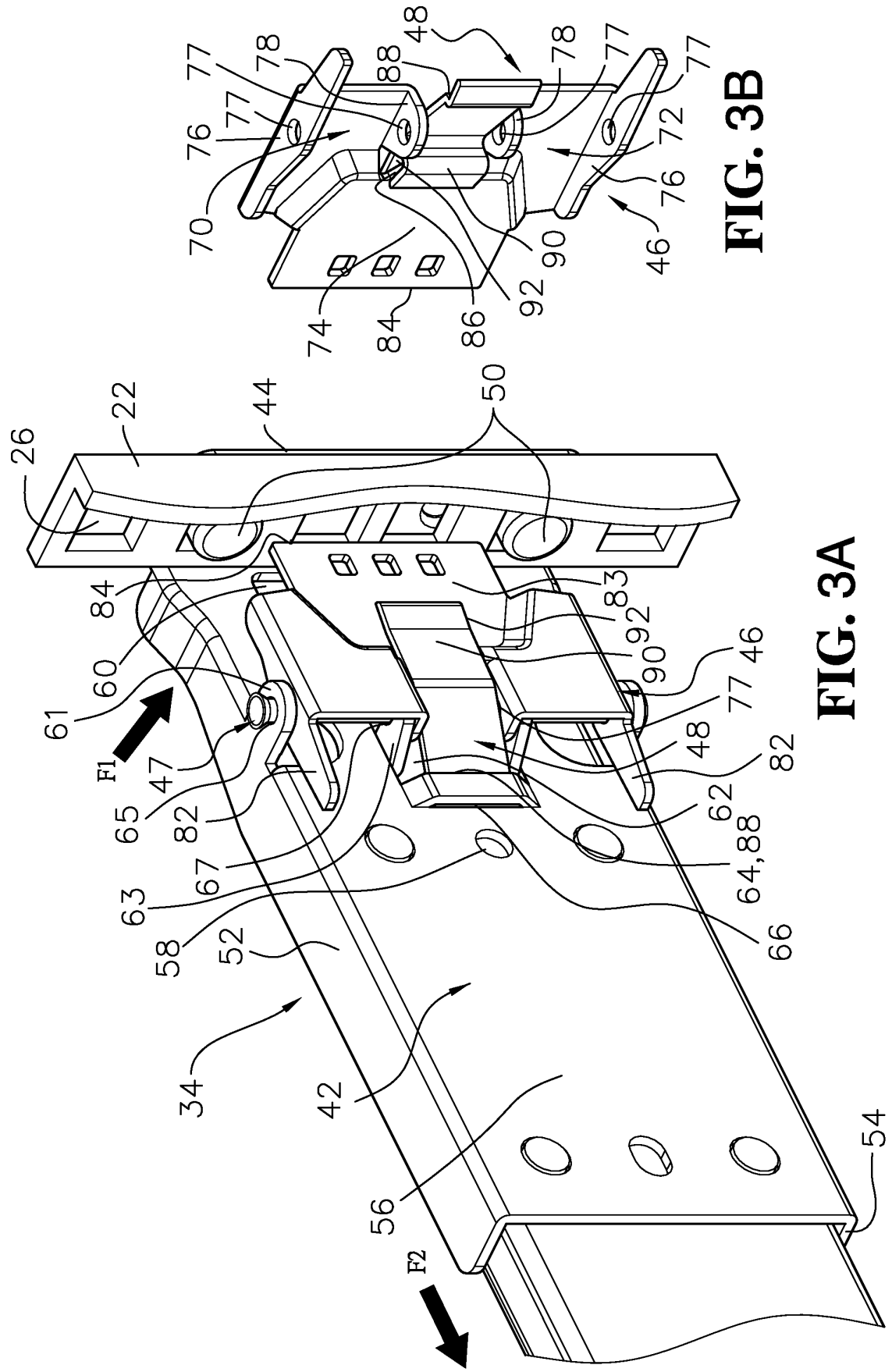

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FIG. 3B

FIG. 3A

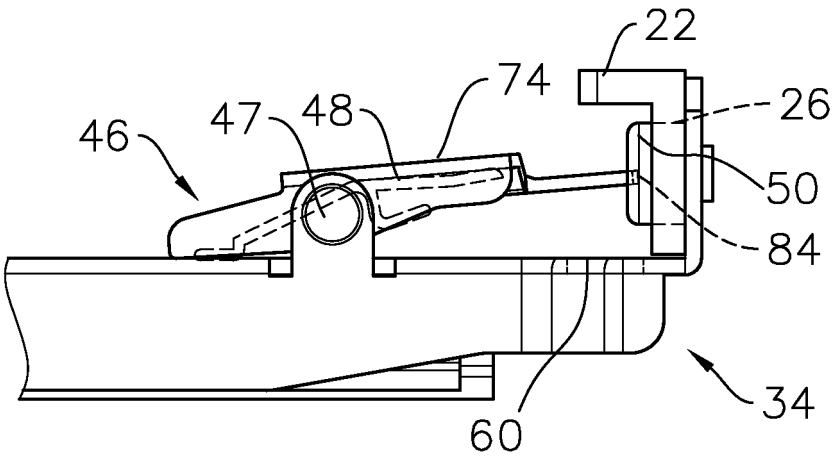


FIG. 4

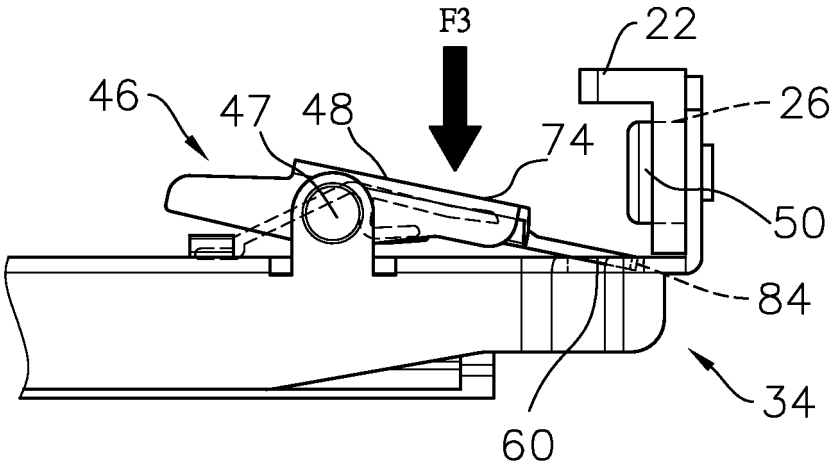


FIG. 5

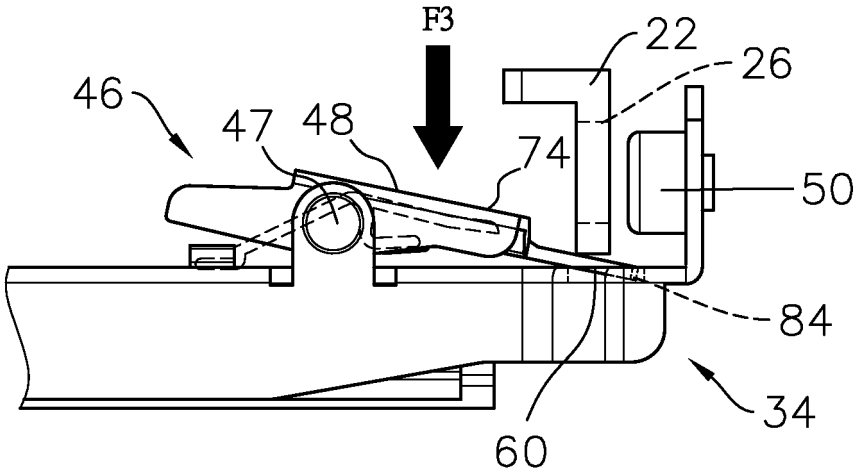


FIG. 6

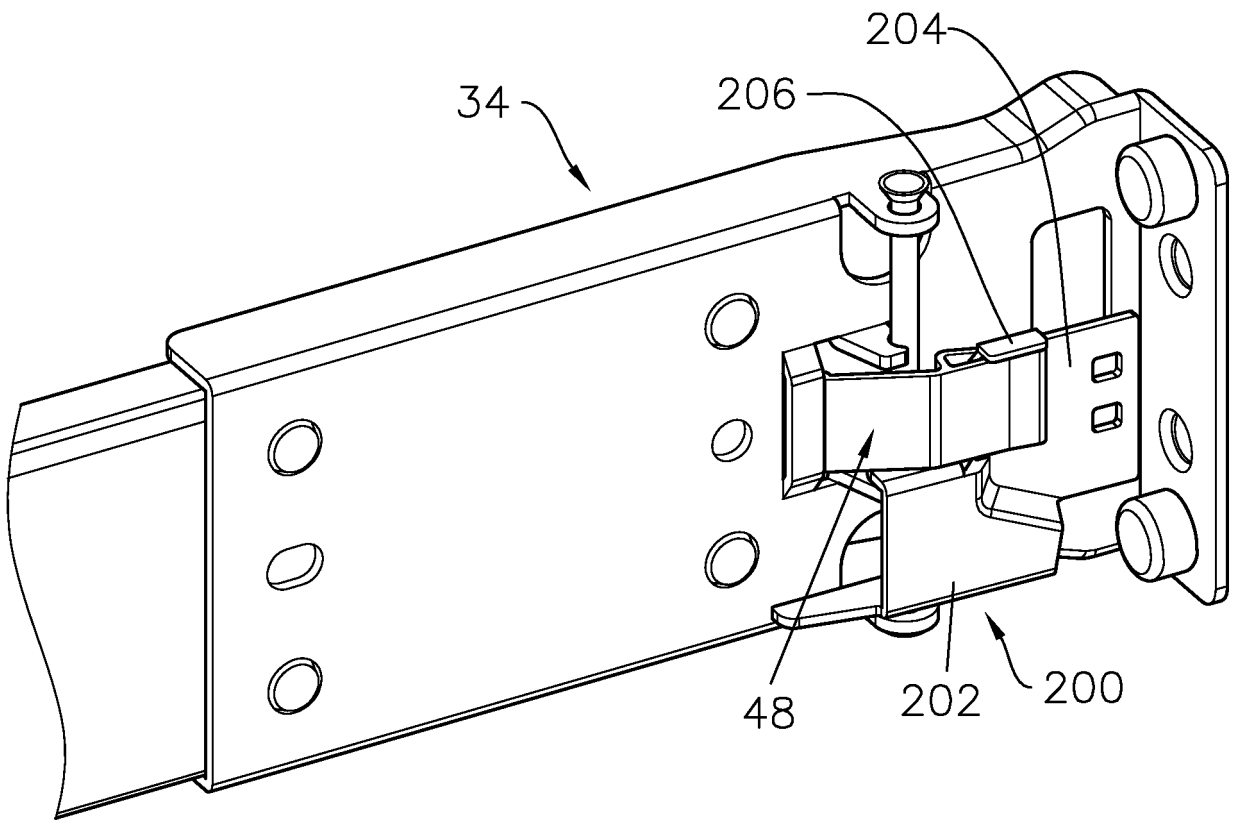


FIG. 7

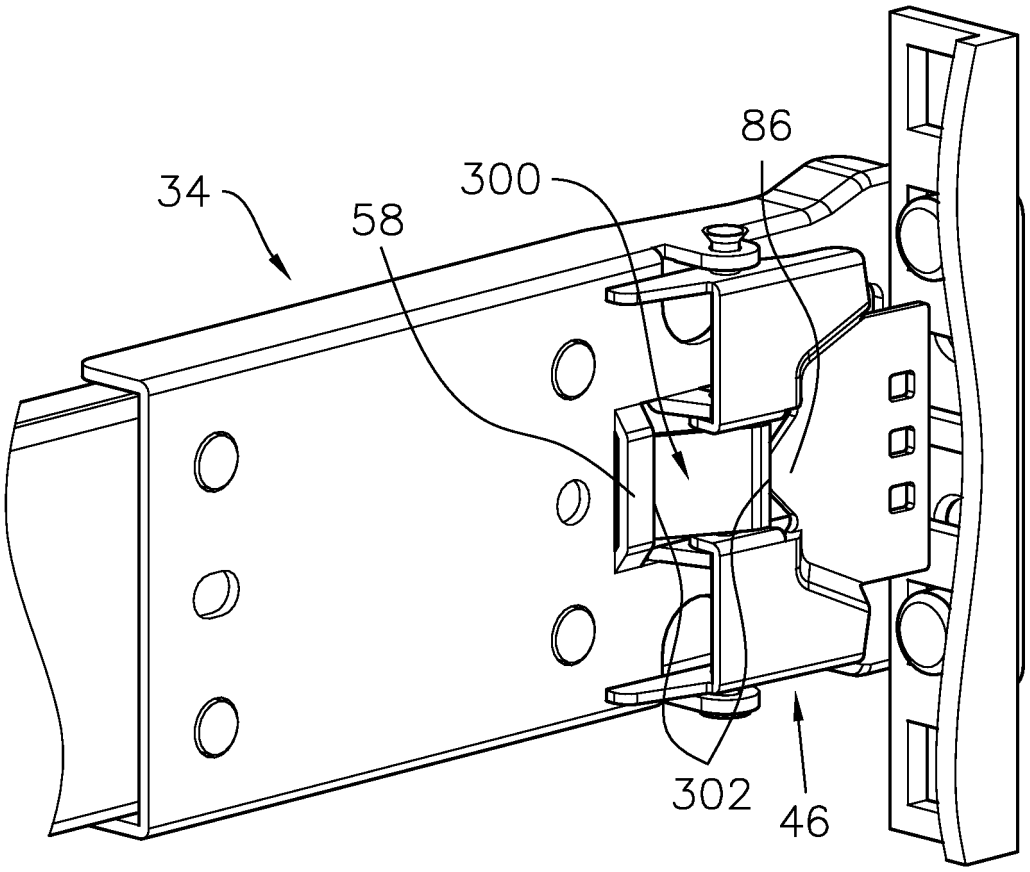


FIG. 8

REFERENCES CITED IN THE DESCRIPTION

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- US 7281694 B2, Allen **[0002]**
- US 20080067907 A1 **[0004]**