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(54) **A ROOFING SEAT DEVICE**

DACHSITZ

DISPOSITIF DE SIÈGE DE COUVERTURE

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Description

Field of the Invention

[0001] The invention relates to a roofing seat device suitable for mounting to two roof battens for lateral movement along the battens.

Background to the Invention

[0002] Roof construction generally involves affixing rafters to a base (building shell) to define an inverted V-shape structure above the base. The rafters are covered with felt or other waterproof material. Across the felt are affixed a series of cross battens perpendicular to the rafters. The battens are generally parallel to the top edge of the inverted V-shape structure. To provide a further waterproofing layer, a series of overlapping slates are laid or fixed to the battens.

[0003] Slating roofs can be a difficult task for workers as they are someway from the ground and need to feel secure as they work. Particularly, a worker or user in such a situation will be required to frequently move his or her position, so as to collect slates, lay the slates on wooden battens and move onto the next portion of the roof that he or she is working on.

[0004] By necessity, a great deal of movement is required of the workers as they collect and lay slates on the wooden battens. Typically, most workers will sit on the battens, having one leg resting on a batten while the other leg is tucked up underneath the person acting to anchor the worker in place. The positioning of the legs is both uncomfortable and cumbersome. Also, the workers must move their tools and/or slates as they themselves move across the battens when slating the roof. All the while, the worker must take great care and effort not to damage the felt layer.

[0005] In addition, many different roofs have different pitches, for example one roof may be at an angle of 45 degrees to the vertical, whereas a second roof may be at an angle of 20 degrees to the vertical.

[0006] Attempts have been made to address the above-mentioned problems. For example, United Kingdom patent application GB 2229482 discloses a roofing seat device capable of engaging with roof battens for rolling movement across a slanted roof during construction or slating of the roof, the device comprising a support base having first batten engagement means, second batten engagement means, and a seat disposed at an angle with respect to the support base for supporting a person during use, wherein the first and second batten engagement means comprise rollers adapted to roll along a batten, and wherein the spacing between the first and second batten engagement means can be adjusted. In this device, both of the batten engagement means are adjustable with respect to the support, thereby allowing adjustment of the device to fit to roofs with battens having different spacing and to allow the seat maintain a horizontal disposition on roofs of different pitches. However, referring to Fig. 1, it will be seen that when a person is located on the seat of the device, most of the weight will be loaded axially onto the length adjustable bar which causes wear and tear, and ultimately breakage, of the adjustment mechanism of the adjustable bar. Further, adjustment of the device to enable it to be mounted on roofs having different pitches requires adjustment of the batten engagement means, even if the batten spacing on the roofs is the same.

[0007] EP 0042465 and German Utility Model No. 8705770 both disclose a carriage suitable for engagement with and rolling movement along two roof battens or roof mounted. However, the carriages disclosed in both applications are not adjustable so that they cannot be used on roofs with battens having different spacing. Furthermore, the support surface is unsuitable for use as a seat for a person. US Patent Publication No. 2008/0309033 discloses a seat for a person on a roof that can only be applied on the roof ridge and not on inclined roof sides.

[0008] It is an object of the present invention to overcome at least one of the above-mentioned problems.

Statements of Invention

[0009] In a first aspect, there is provided a roofing seat device capable of engaging with roof battens for rolling movement across a slanted roof during construction or slating of the roof, the device comprising a support base having first batten engagement means, second batten engagement means, and a surface for supporting a person during use, wherein the first and second batten engagement means comprise rollers adapted to roll along a batten/rail, wherein the first and second batten/rail engagement means comprise rollers adapted to roll along a batten/rail, wherein the first batten/rail engagement means comprises two spaced apart pairs of rollers each pair comprising a first roller which is adapted to engage a top of a first batten/rail and a second roller which is adapted to engage an upper side of the first batten/rail, and the second batten engagement means comprises two spaced apart rollers each roller adapted to engage a top of a second batten/rail; characterised in that the surface for supporting the person is a seat which is adapted for adjustment of the angle of the seat with respect to the support base.

[0010] Unlike the devices of EP 0042465 and DE 8705770, the device of the present in vention includes a seat for a person that is adjustable with respect to the support. This allows the device be used on roofs of different pitches while maintaining the seat in a generally horizontal orientation.

[0011] While the device of the invention has been described as being suitable for engagement with roof battens, it will be appreciated that it is equally suitable for engagement with other types of rails that are disposed laterally on a roof, and in this regard the invention is not

restricted to devices that are only suitable for use with roof battens.

[0012] Typically, the support base comprises a first part having the first batten engagement means and the seat, and a second part having the second batten engagement means, and wherein the first and second parts are connected for movement together and apart. Preferably, the first and second parts of the roof are telescopically connected, and typically include a locking means to lock the first and second parts together in a desired position. Ideally, the first batten engagement means is adapted for engagement of a lower batten (i.e. a batten that is located on the roof at a lower position to the other baiten) and the second batten engagement means is adapted for engagement of an upper batten.

[0013] Preferably, the first batten engagement means comprises a pair of rollers including a first roller disposed to engage to a top of a batten and a second roller adapted to engage an upper side of the batten. The term "upper side" should be understood to mean that side of the batten that is uppermost - in the case of a lower batten, the upper side is the side facing the upper batten. In a preferred embodiment of the invention, the first batten engagement means comprises two pair of rollers, typically spaced apart on opposite sides of the device.

[0014] Suitably, the second batten engagement means comprises a roller disposed to engage a top of a batten. Ideally, the second batten engagement means comprises two, ideally spaced apart, rollers, each disposed to engage a top of the batten. The rollers may be elongated along an axis of rotation.

[0015] In a preferred embodiment of the invention, the seat is hingedly mounted to the support base for adjustable tilting movement of the seat into a plurality of different positions. This allows the angle of the seat to be adjusted independently of the adjustment of the batten engagement means. Various means are envisaged for providing a seat which is adjustably mounted to the support. In the example provided below, the seat is hingedly connected at one end to the support base, and an opposite end has a support strut adapted to support the seat at a plurality of different angles to the support base.

[0016] Suitably, the device of the invention comprises a stabiliser arm which extends laterally of the device (i.e. down the roof) and is adapted to bear against the roof when the device tilts away from the roof. Thus, when a user of the device shifts their weight towards a rear of the seat, this can cause the device to tilt and lift-off the roof. The stabiliser arm helps prevent this occurrence, and stabilises the device by bearing against the roof and preventing tilting of the device away from the roof. The stabiliser arm suitably comprises a roller mounted on an end of the arm for rolling movement along the roof. In this regard, the arm may be disposed with respect to the roof such that it is in constant engagement with the roof, such that as soon as the device begins to tilt away from the roof, the arm (or more particularly the roller at the end of the arm) will bear against the roof preventing further tilting.

[0017] In one embodiment of the invention, the first or second batten engagement means comprises a safety brake means which is disposed with respect to the rollers such that when a roller passes beyond an end of a batten the brake engages the batten to stop further movement of the device with respect to the batten. This has the effect of preventing the device rolling off a roof. Typically, the brake is disposed on the first batten engagement means, between the pairs of rollers and adjacent to one of the pairs. Ideally, the first batten engagement means comprises two brakes, one disposed adjacent to each pair of rollers. Due to its position adjacent a roller pair, as soon as the roller pair run off the batten, the device will fall a little bringing the brake into contact with the batten. The brake itself may take many forms, the details of which will be apparent to a person skilled in the field. In the embodiment described below, the brake comprises a serrated edge which is disposed on the first batten engagement means such that it is spaced from the batten when the roller pairs engage the batten, but is brought into contact with the batten when the rollers roll of an end of the batten.

[0018] The device may also include a locking anchor adapted for locking the roofing seat device in position, the locking anchor comprising an arm which is adjustable into and out of engagement with the roof to securely anchor the device to the roof. The purpose of this anchor is to prevent unwanted movement of the device along the roof when it has been manoeuvred into a desired position, and also prevent the device sliding or falling off the roof when in use. The anchor may take many forms; in the embodiment described below, the anchor comprises a leg which can be articulated into engagement with the roof, thereby preventing further movement of the device along the roof. The user may also weak a harness of the like which can be attached to the device during use such that when the device is securely anchored, the user is securely anchored to the roof via the device.

[0019] In a third aspect, the invention provides a lateral support track suitable for mounting to a roof between two roof ladders and supporting a roofing seat device for lateral rolling movement along the support track, the support track comprising a pair of connected, spaced apart, rails, and means for adjustably mounting each end of the support track to a roof ladder.

[0020] Suitably, the spaced apart rails are connected by means of a lattice truss, although other means of supporting the two rails in a spaced-apart, parallel, disposition are envisaged and will be known to those skilled in the art.

[0021] Typically, the means for adjustably mounting each end of the support track to a roof ladder comprises a hook means, which hook means is ideally capable of lateral movement along the support track.

[0022] In a further aspect, the invention provides a roofing system comprising:

- a support track of the invention;
- optionally, a pair of roof ladders adapted for mounting on the roof;
- optionally, a clamp of the invention; and
- a roofing seat device of the invention.

[0023] The invention also relates to a roof seat device adapted for engagement with and movement along a pair of roof battens, the device comprising:

- a chassis having a seat and first batten engagement means comprising rollers adapted to roll along a first batten;

- second batten engagement means comprising rollers adapted to roll along a second batten, adjustably mounted to the chassis for movement relative to the first batten engagement means,

wherein the seat is adjustably mounted the chassis to allow tilting movement of the seat relative to the chassis into a plurality of different positions.

[0024] The invention also relates to a roofing seat device capable of engaging with roof battens for rolling movement across a slanted roof during construction or slating of the roof, the device comprising a support base having first batten engagement means, second batten engagement means, and a seat disposed at an angle with respect to the support base for supporting a person during use, wherein the first and second batten engagement means comprise rollers adapted to roll along a batten, and wherein the spacing between the first and second batten engagement means can be adjusted to extend or retract the device, characterised in that device is adapted for extension or retraction in a single plane and the seat is adapted for adjustment of the angle of the seat with respect to the support base.

Brief Description of the Drawings

[0025] The invention will be more clearly understood from the following description of an embodiment thereof, given by way of example only, with reference to the accompanying drawings, in which:-

Figures 1 illustrates (A) a top plan view, (B) an underside perspective view, (C) a topside perspective plan view and (D) a side elevational view of the roofing seat device of the present invention;

Figure 2 illustrates a (A) topside perspective view and (B) underside perspective view of a slate-carrying carriage;

Figure 3 illustrates a lateral support track of the present invention engaged with the roofing seat device of the present invention;

Figures 4 and 5 illustrate a lateral support track of the present invention engaged with the roofing seat device of the present invention;

Figures 6 is a rear perspective view of the lateral support track of Figs 4 and 5 engaged with the roofing seat device of the present invention, shown with the clamps removed; and

Figure 7 is a partly exploded view of the lateral support track, roofing seat device of Fig. 4, showing how the clamp engages with the roofing seat device.

Detailed Description of the Drawings

[0026] Referring to the drawing, and initially to Figs 1A to 1D in particular, there is illustrated a roofing seat device of the invention, indicated generally by the reference numeral 1. and comprising a support base 2, first batten engagement means 3 fixed to the support base 2, second batten engagement means 4 adapted for movement with respect to the support base 3, and a seat 5 disposed at an angle with respect to the support base 2 for supporting a person during use, the seat 5 being adjustable to vary the angle between the seat and the support base.

[0027] In more detail, the support base 2 comprises a first part 7 having the first batten engagement means 3 and the adjustable seat 5, and a second part 8 having the second batten engagement means 4. The first 7 and second 8 parts of the device 1 are telescopically connected, and include a locking means 9 which can be actuated to lock the two parts together in a plurality of different positions (corresponding to different batten spacings).

[0028] In this embodiment, the first batten engagement means 3 is adapted for engagement of a lower batten (not shown) and the second batten engagement means 4 is adapted for engagement of an upper batten (not shown).

[0029] In more detail, the first batten engagement means 3 comprises two pairs of rollers, each pair including a first roller 12 disposed to engage to a top of a batten and a second roller 13 adapted to engage an upper side of the batten. As is evident from the Fig. 1D, the first and second rollers are arranged in a perpendicular arrangement. The rollers 12, 13 are supported on a supporting bracket 15 having a generally L-shaped cross section, which in turn is connected to two cylinders 20, 21 forming part of the support base 2.

[0030] The second batten engagement means 4 comprises two spaced-apart rollers 17, each disposed to engage a top of the upper batten. The rollers 17 are supported on an L-shaped supporting bracket 18, which is connected to two cylinders 23, 24 which in turn are telescopically mounted to the two cylinders 20, 21 forming part of the support base 2.

[0031] The seat 5 is hingedly connected at one end to the support base 2, and an opposite end has a support strut 25 adapted to support the seat 5 at a plurality of different angles to the support base 2 by engagement of one of a plurality of different seating positions 26. The seat includes a layer of elastomeric material 30 which in use provide grip for the user and helps prevent a user

sliding off the seat unintentionally.

[0032] The device also includes a table 31 having a plurality of separate compartments 32 suitable for holding tools such as a hammer, nails and the like. The table 31 may be mounted to the two cylinders 20, 21 or the L-shaped supporting bracket 18 on the second part 8 of the device. In the instance where the table 31 is mounted to the L-shaped supporting bracket 18, the table 31 moves in conjunction with the second part 8 of the device when the second part 8 is being extended or retracted telescopically to engage with a batten.

[0033] A stabiliser arm 35 is provided on the device to help prevent the device tilting backwards off a roof. The arm 35 extends laterally of the device (i.e. down the roof) and is adapted to bear against the roof when the device 1 tilts away from the roof. The stabiliser arm 35 comprises a roller 36 mounted on an end of the arm for rolling movement along the roof. In this regard, the arm may be disposed with respect to the roof such that it is constant engagement with the roof, such that as soon as the device begins to tilt away from the roof, the arm (or more particularly the roller at the end of the arm) will bear against the roof preventing further tilting.

[0034] The first batten engagement means 3 includes two safety brakes mounted to the L-shaped bracket 15 between the roller pairs. Each brake comprises a serrated bracket 37 which is positioned on the bracket such that when the roller pairs engage the batten the serrated bracket is spaced from the batten, and when the roller pairs roll off an end of the batten the device drops a little bringing the serrated bracket 37 into contact with the batten, whereupon the serrations engage the batten and anchor the device in position preventing any further lateral movement until the bracket is disengaged from the batten and the rollers replaced on the batten.

[0035] The device 1 also include a locking anchor 40 adapted for locking the device 1 in position. The locking anchor 40 comprises a leg 41 which is adjustable into and out of engagement with the roof. The purpose of this anchor is to prevent unwanted movement of the device along the roof when it has been manoeuvred into a desired position, and also to securely anchor the device to the roof and prevent it sliding or falling off the roof when it is in use. In this regard, the user may secure themselves to the device such that when it is anchored in position, the user is effectively anchored to the roof.

[0036] In use, the device of the invention may be employed by a roofer to help move about a roof when slating the roof. The device is first adjusted to suit the pitch of the roof and the spacing between the battens. First, the first batten engagement means is placed into engagement with a lower batten, and then the second batten engagement means is adjusted until the rollers are disposed over the top of the second batten. The seat is then adjusted until is it generally horizontal. The device is then positioned in a place where the user wishes to start the slating process, it is locked in place using the brake 40, and the user may then start slating. The device may then be moved sideways along the battens to allow the user apply slates across the roof.

[0037] Referring to Figs 2A and 2B, there is illustrated a carriage, in which parts previously described with reference to the first aspect of the invention are assigned the same reference numerals. The carriage, which like the roofing seat device of the first aspect of the invention, is suitable for engagement with, and rolling movement along, roof battens, is indicated generally by the reference numeral 50 and comprises a support base 52 having first batten engagement means 3, second batten engagement means 4, and a surface 55 suitable for supporting a plurality of tiles or the like and a support rail 56 for supporting tiles that are stacked on the surface 55.. In this embodiment, the second batten engagement means 4 comprises a pair of elongated rollers 57 adapted to engages a top of the upper batten. The use of elongated rollers facilitates use of the. carriage with roof battens of different spacing as the use of elongated rollers obviates the requirement to adjust the batten engagement means.

[0038] Referring to Figs 3 to 7, there is illustrated a lateral support track according to a third aspect of the invention, and indicated generally by the reference numeral 60, in which parts previously described with reference to the first aspect of the invention are assigned the same reference numerals. The lateral support tract 60 comprises a pair of spaced-apart rails 61 that are connected and supported by means of truss lattice 62. A pair of ladder-engaging hooks 63 are mounted on the track 60 for lateral movement along the track. In use, the track 60 is mounted by means of the two hooks 63 to a pair of spaced apart roof ladders 65 which will generally be mounted at opposite ends of a roof. The vertical positioning of the track 60 can be changed by simply unhooking the track and moving to a higher rung of the two roof ladders 65. The rails 61 act as a track for mounting a roofing seat device, for example a roofing seat device of the invention 1. The roofing seat device 1 is the same as that described with reference to Figure 1 with the exception that it includes a clamp 66 which is adapted for reversible engagement with the first batten engagement means 3 to help clamp the device 1 to the rail 61. The clamp 66 comprises an L-shaped support 68 having two rollers 69 (shown in Fig. 7). In Fig. 3 the track 60 is shown with a roof seating device of the invention 1 mounted thereon for lateral movement along the track. In Figs. 4 and 5, the track 60 is shown with a roofing seat device of the invention 1, and a slate-carrying carriage 50, mounted thereon for lateral movement along the track. Fig. 6 shows a rear perspective of the roofing seat device 1 and carriage 50 of Figs 4 and 5, showing the clamps 66 attached to the second batten engagement means 3 by means of fixing means, for example locking nuts 67. Fig. 7 shows the clamps 66 separated from the roofing seat device 1 and carriage 50. In use the clamps 66 are moved in the direction of the arrows A to engage with the device 1 and carriage 50, whereupon tightening of the

locking nuts results in the clamp bearing against the top rail 61 to clamp the device 1, or carriage 50, to the track. Generally, the clamp or clamps 66 will remain attached to the support track.

Claims

1. A roofing seat device (1) suitable for engagement with and rolling movement along two roof battens or roof mounted rails and comprising a support base (2) having first batten/rail engagement means (3), second batten/rail engagement means (4), and a surface for supporting a person (5), wherein the first and second batten/rail engagement means comprise rollers adapted to roll along a batten/rail, wherein the first batten/rail engagement means comprises two spaced apart pairs of rollers each pair comprising a first roller (12) which is adapted to engage a top of a first batten/rail and a second roller (13) which is adapted to engage an upper side of the first batten/rail, and the second batten engagement means comprises two spaced apart rollers (17) each roller adapted to engage a top of a second batten/rail;
characterised in that the surface for supporting a person is a seat (5) which is adapted for adjustment of the angle of the seat with respect to the support base.

2. A roofing seat device as claimed in Claim 1 in which the support base comprises a first means (3) having the first batten/rail engagement means and the seat, and a second means (4) having the second batten/rail engagement means, and wherein the first and second means (3, 4) are telescopically connected for movement together and apart.

3. A roofing seat device as claimed in Claim 2. in which the seat is hingedly mounted to the support base (2) and adjustable for tilting movement into a plurality of different positions.

4. A roofing seat device as claimed in any one of Claims 1 to 3 in which the first batten/rail engagement means (3) is adapted for engagement with a lower batten/rail, and the second batten engagement means (4) is adapted for engagement with an upper batten/rail.

5. A roofing seat device as claimed in any one of Claims 1 to 4 in which the rollers (17) of the second batten/rail engagement means comprise rollers that are elongated along an axis of rotation.

6. A roofing seat device as claimed in any of Claims 1 to 5 in which the first or second batten/rail engagement means comprises a safety brake means which is disposed with respect to the rollers and configured to prevent the device from rolling off a roof.

7. A roofing seat device as claimed in any one of Claims 1 to 6 further comprising a stabiliser arm which extends laterally of the device and adapted to bear against the roof when the device tilts away from the roof.

8. A roofing seat device as claimed in any of Claims 1 to 7 and including a locking anchor adapted for locking the device in position, the locking anchor comprising an arm which is adjustable into and out of engagement with the roof.

9. In combination, a roofing seat device of any one of Claims I to 8 and a lateral support track comprising a pair of spaced apart rails, and means for adjustably mounting each end of the support track to a roof ladder.

Patentansprüche

1. Dachsitzvorrichtung (1), geeignet für einen Eingriff mit und eine Rollbewegung entlang zwei Dachlatten oder dachmontierten Schienen, und mit einer Stützbasis (2) mit einem ersten Latten/Schienen-Eingriffsmittel (3), einem zweiten Latten/Schienen-Eingriffsmittel (4) und einer Oberfläche zum Tragen einer Person (5), wobei das erste und das zweite Latten/Schienen-Eingriffsmittel Rollen ausgelegt zum Rollen entlang einer Latte/Schiene umfassen, wobei das erste Latten/Schienen-Eingriffsmittel zwei beabstandete Paare von Rollen umfasst, wobei jedes Paar eine erste Rolle (12) ausgelegt zum Angreifen an einer Oberseite einer ersten Latte/Schiene und eine zweite Rolle (13) ausgelegt zum Angreifen an einer Oberseite der ersten Latte/Schiene umfasst und das zweite Latteneingriffsmittel zwei beabstandete Rollen (17) umfasst, wobei jede Rolle zum Angreifen an einer Oberseite einer zweiten Latte/Schiene ausgelegt ist;
dadurch gekennzeichnet, dass die Oberfläche zum Tragen einer Person ein Sitz (5) ist, der zum Justieren des Winkels des Sitzes mit Bezug auf die Stützbasis ausgelegt ist.

2. Dachsitzvorrichtung nach Anspruch 1, wobei die Stützbasis ein erstes Mittel (3) mit dem ersten Latten/Schienen-Eingriffsmittel und dem Sitz und ein zweites Mittel (4) mit dem zweiten Latten/Schienen-Eingriffsmittel umfasst und wobei die ersten und zweiten Mittel (3, 4) teleskopisch für eine Bewegung zusammen und auseinander verbunden sind.

3. Dachsitzvorrichtung nach Anspruch 2, wobei der Sitz klappbar an der Stützbasis (2) montiert ist und für eine Kippbewegung in mehrere unterschiedliche

Positionen justiert werden kann.

4. Dachsitzvorrichtung nach einem der Ansprüche 1 bis 3, wobei das erste Latten/Schienen-Eingriffsmittel (3) für den Eingriff mit einer unteren Latte/Schiene ausgelegt ist und das zweite Latteneingriffsmittel (4) für den Eingriff mit einer oberen Latte/Schiene ausgelegt ist.

5. Dachsitzvorrichtung nach einem der Ansprüche 1 bis 4, wobei die Rollen (17) des zweiten Latten/Schienen-Eingriffsmittels Rollen umfassen, die entlang einer Drehachse länglich sind.

6. Dachsitzvorrichtung nach einem der Ansprüche 1 bis 5, wobei das erste oder zweite Latten/Schienen-Eingriffsmittel ein Sicherheitsbremsmittel umfasst, das mit Bezug auf die Rollen angeordnet und zum Verhindern des Herabrollens der Vorrichtung von einem Dach konfiguriert ist.

7. Dachsitzvorrichtung nach einem der Ansprüche 1 bis 6, die ferner einen Stabilisatorarm umfasst, der lateral von der Vorrichtung verläuft und zum Anliegen an dem Dach ausgelegt ist, wenn die Vorrichtung vom Dach weg gekippt ist.

8. Dachsitzvorrichtung nach einem der Ansprüche 1 bis 7, die einen Sperranker zum Sperren der Vorrichtung in ihrer Position aufweist, wobei der Sperranker einen Arm aufweist, der in den und aus dem Eingriff mit dem Dach justiert werden kann.

9. Dachsitzvorrichtung nach einem der Ansprüche 1 bis 8 und laterale Lagerspur in Kombination, umfassend ein Paar beabstandeter Schienen und Mittel zum justierbaren Montieren jedes Endes der Lagerspur an einer Dachleiter.

Revendications

1. Dispositif de siège de couverture (1) convenant à une mise en prise avec deux voliges de toit ou rails montés sur le toit et à avoir un mouvement de roulis le long de ces derniers, et comprenant une base de support (2) laquelle possède un premier moyen de mise en prise de volige/rail (3), un deuxième moyen de mise en prise de volige/rail (4), et une surface pour supporter une personne (5), les premier et deuxième moyens de mise en prise de volige/rail comprenant des rouleaux conçus pour rouler le long d'une volige/d'un rail, le premier moyen de mise en prise de volige/rail comprenant deux paires de rouleaux espacées l'une de l'autre, chaque paire comprenant un premier rouleau (12) qui est conçu pour se mettre en prise avec un haut d'une première volige/d'un premier rail et un deuxième rouleau (13) qui est conçu pour se mettre en prise avec un côté supérieur de la première volige/du premier rail, et le deuxième moyen de mise en prise de volige comprenant deux rouleaux espacés l'un de l'autre (17), chaque rouleau étant conçu pour se mettre en prise avec un haut d'une deuxième volige/d'un deuxième rail ;
caractérisé en ce que la surface pour supporter une personne est un siège (5) qui est conçu pour un ajustement de l'angle du siège par rapport à la base de support.

2. Dispositif de siège de couverture selon la revendication 1 dans lequel la base de support comprend un premier moyen (3) possédant le premier moyen de mise en prise de volige/rail et le siège, et un deuxième moyen (4) possédant le deuxième moyen de mise en prise de volige/rail, et les premier et deuxième moyens (3, 4) étant raccordés de façon télescopique pour un mouvement conjoint et séparé.

3. Dispositif de siège de couverture selon la revendication 2 dans lequel le siège est monté par articulations sur la base de support (2) et est ajustable pour un mouvement d'inclinaison dans une pluralité de positions différentes.

4. Dispositif de siège de couverture selon l'une quelconque des revendications 1 à 3 dans lequel le premier moyen de mise en prise de volige/rail (3) est conçu pour une mise en prise avec une volige/un rail inférieur(e), et le deuxième moyen de mise en prise de volige (4) est conçu pour une mise en prise avec une volige/un rail supérieur(e).

5. Dispositif de siège de couverture selon l'une quelconque des revendications 1 à 4 dans lequel les rouleaux (17) du deuxième moyen de mise en prise de volige/rail comprend des rouleaux qui sont allongés le long d'un axe de rotation.

6. Dispositif de siège de couverture selon l'une quelconque des revendications 1 à 5 dans lequel le premier ou le deuxième moyen de mise en prise de volige/rail comprend un moyen formant frein de sécurité qui est disposé par rapport aux rouleaux et est configuré de façon à empêcher le dispositif de tomber en roulant du toit.

7. Dispositif de siège de couverture selon l'une quelconque des revendications 1 à 6 comprenant en outre un bras stabilisateur qui s'étend dans le plan latéral du dispositif et est conçu pour prendre appui contre le toit lorsque le dispositif est incliné en s'éloignant du toit.

8. Dispositif de siège de couverture selon l'une quelconque des revendications 1 à 7, et incluant une

ancre de verrouillage conçue pour verrouiller le dispositif en position, l'ancre de verrouillage comprenant un bras qui est ajustable pour une mise en prise avec le toit, et une mise hors prise avec ce dernier.

9. En combinaison, dispositif de siège de couverture selon l'une quelconque des revendications 1 à 8 et voie de support latérale comprenant une paire de rails espacés l'un de l'autre, et un moyen pour monter de façon ajustable chaque extrémité de la voie de support à une échelle de toit.

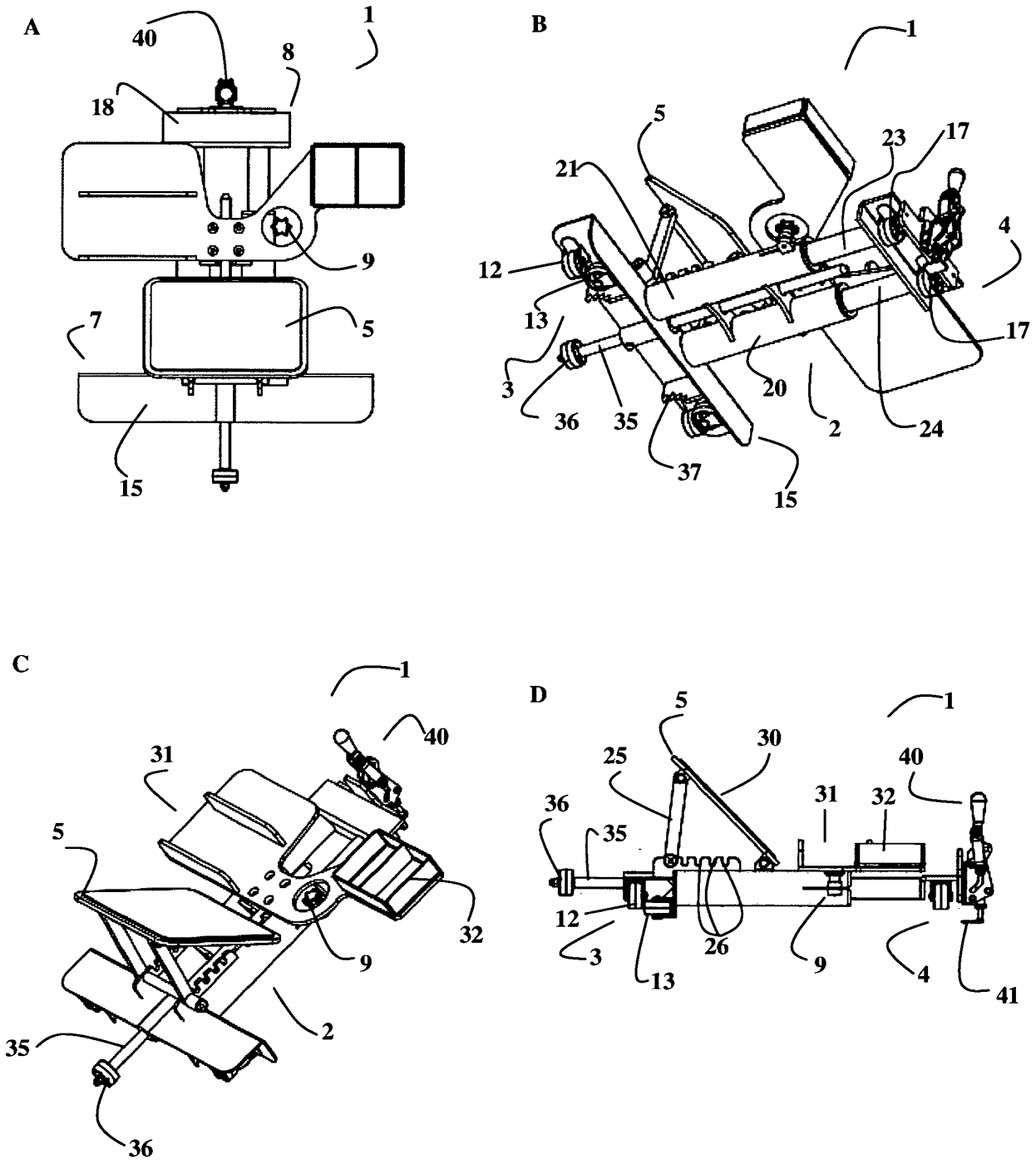

A
40
1
8
18
9
7
5
15
B
1
5
23
17
21
4
12
13
17
3
20
36
35
2
24
37
15
C
1
40
31
5
32
9
2
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D
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1
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12
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26
9
4
13
41

Figure 1

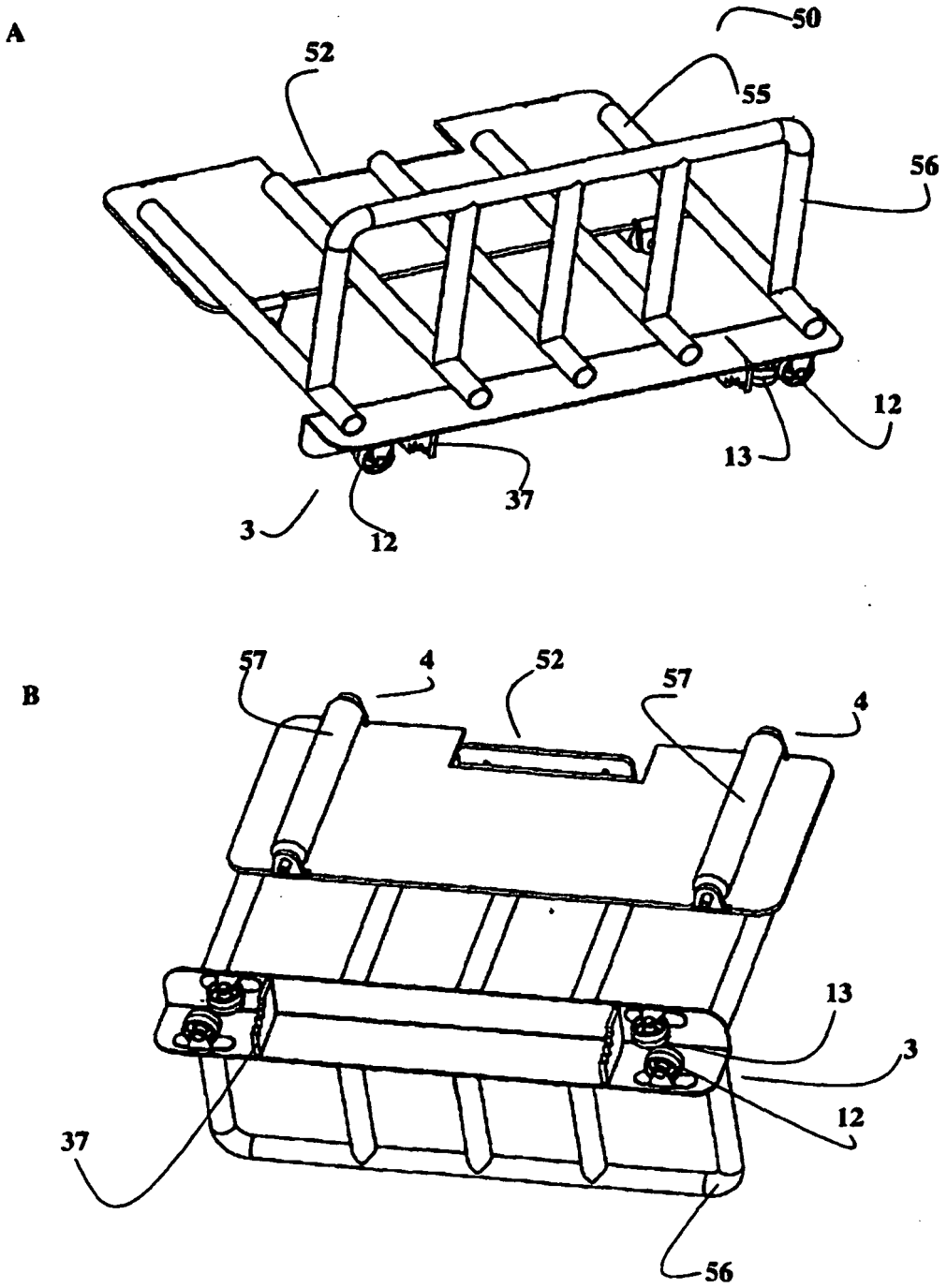


Figure 2.

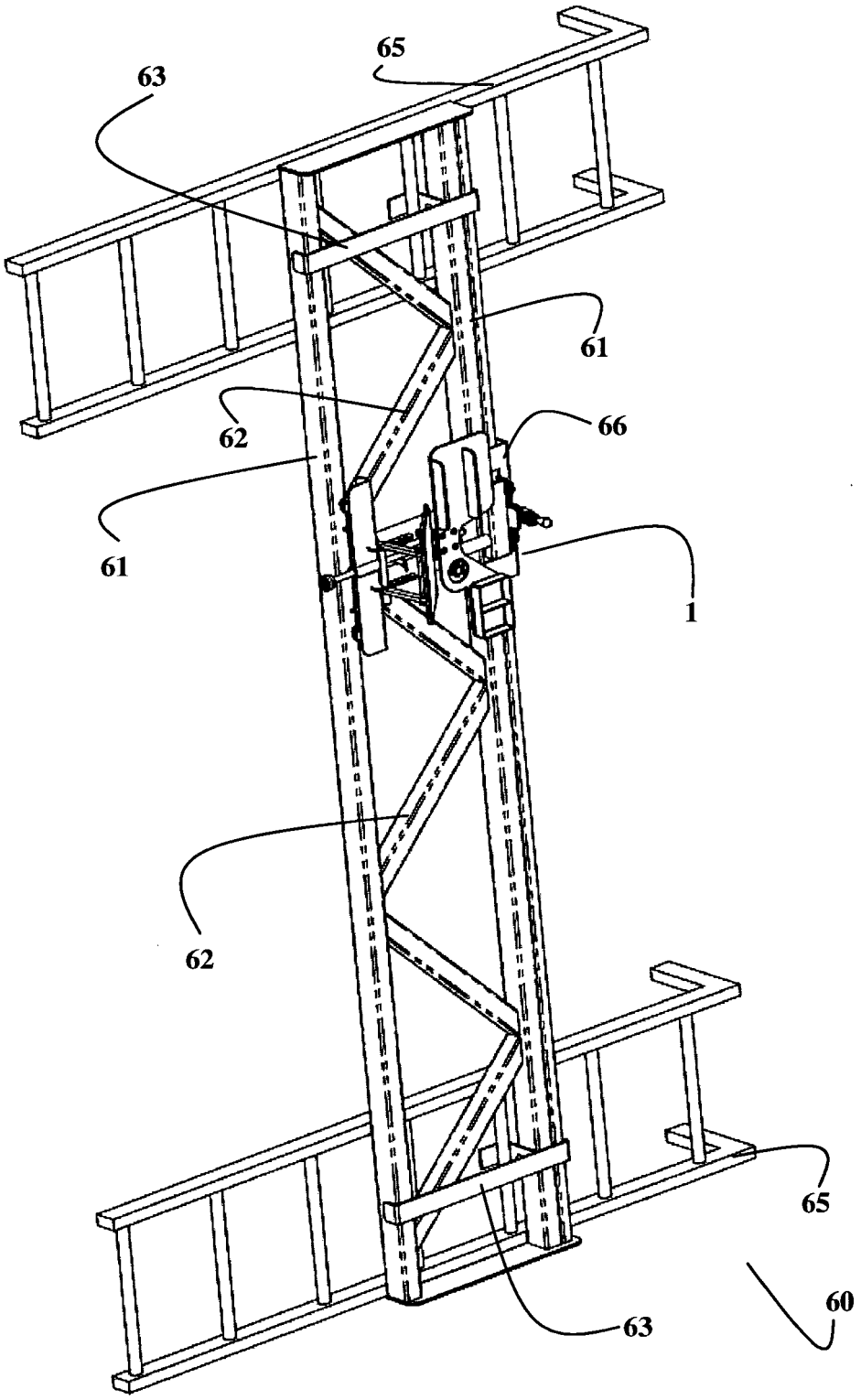


Figure 3

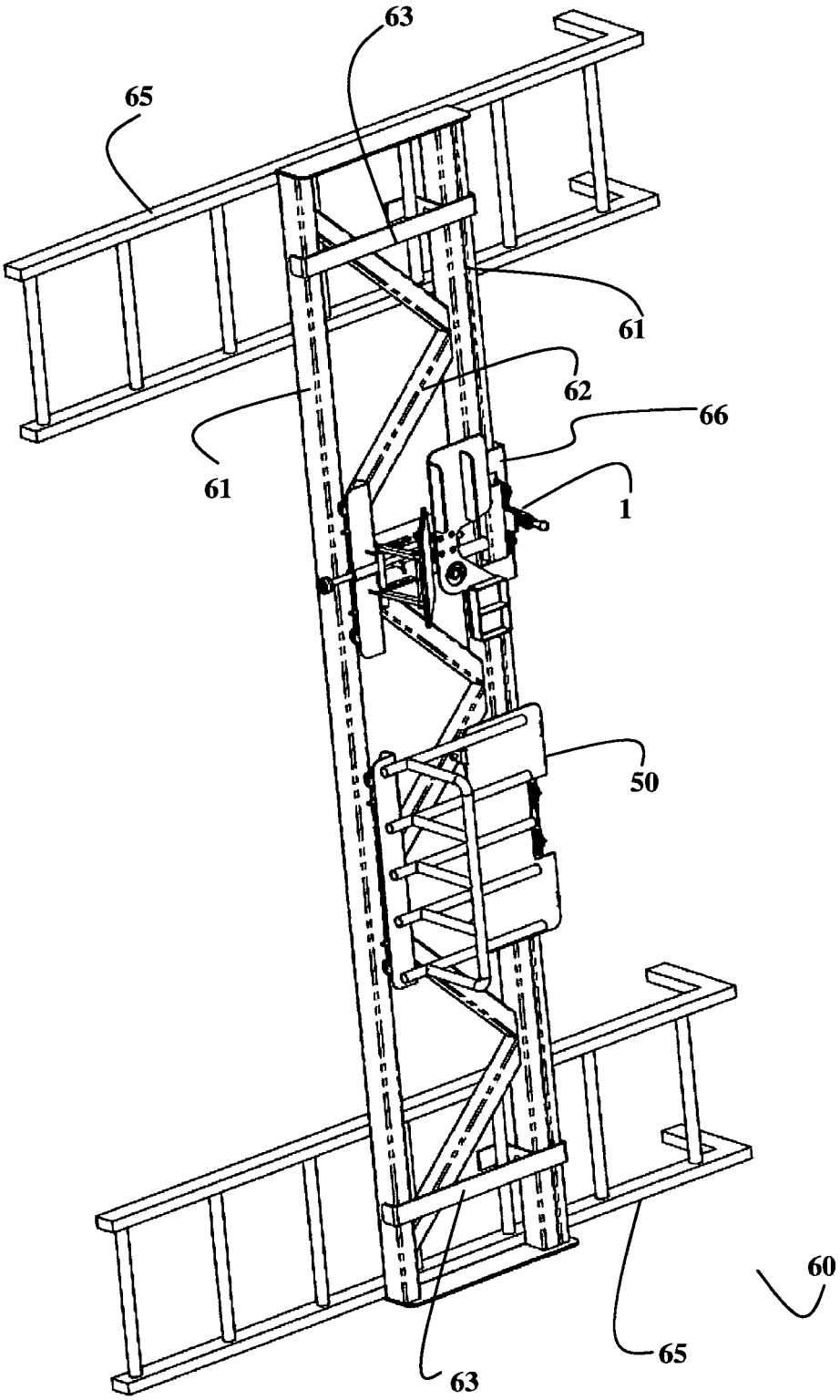


Figure 4

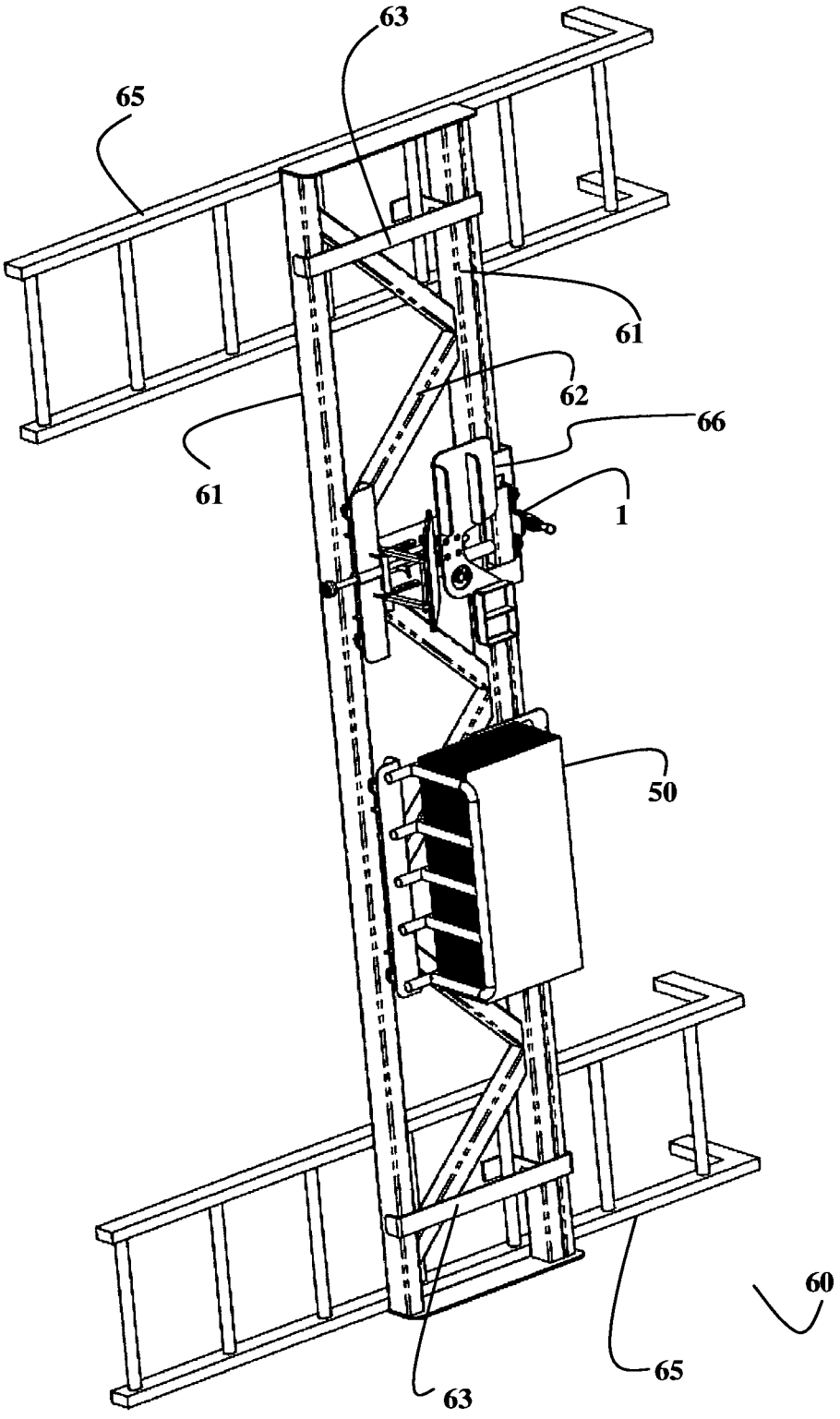


Figure 5

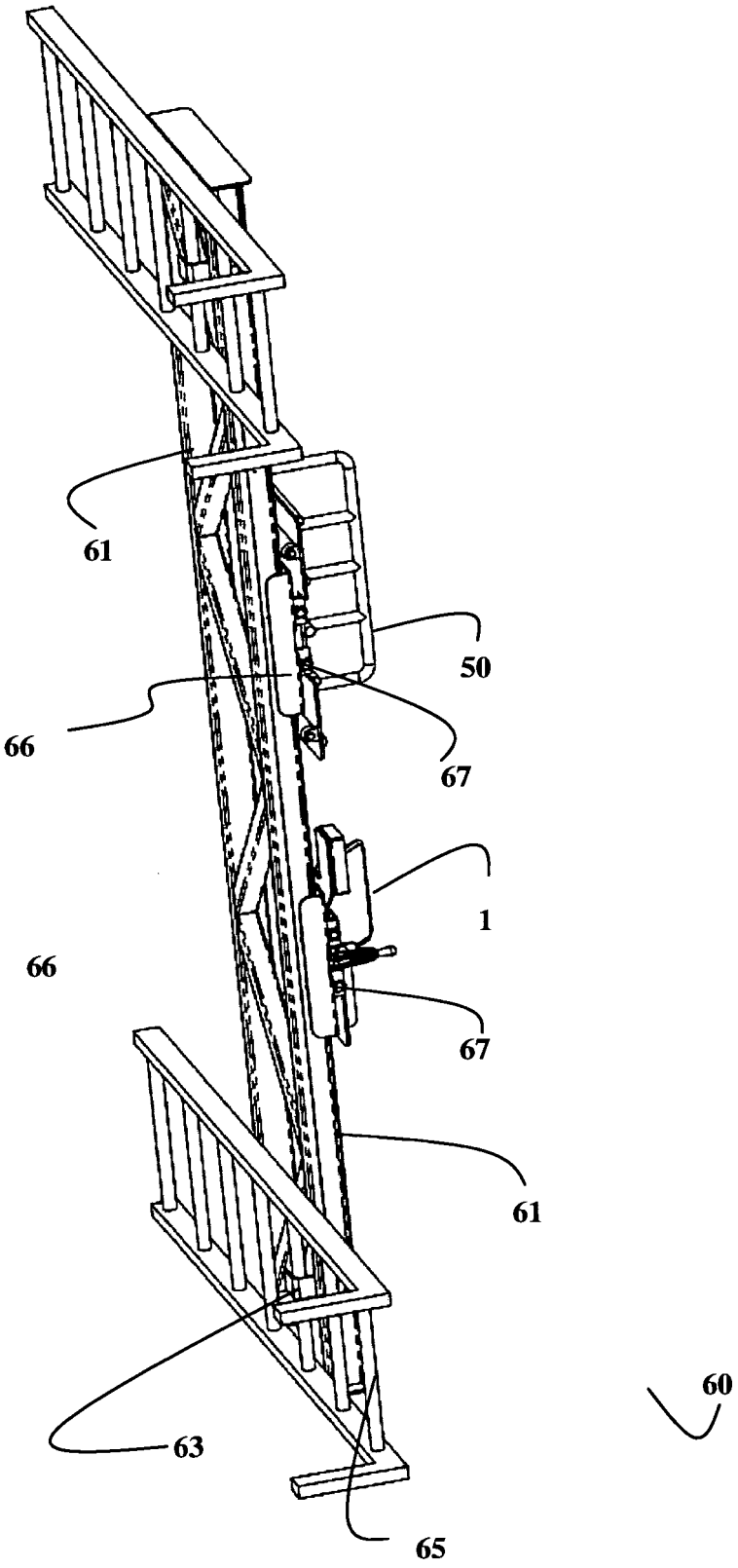


Figure 6

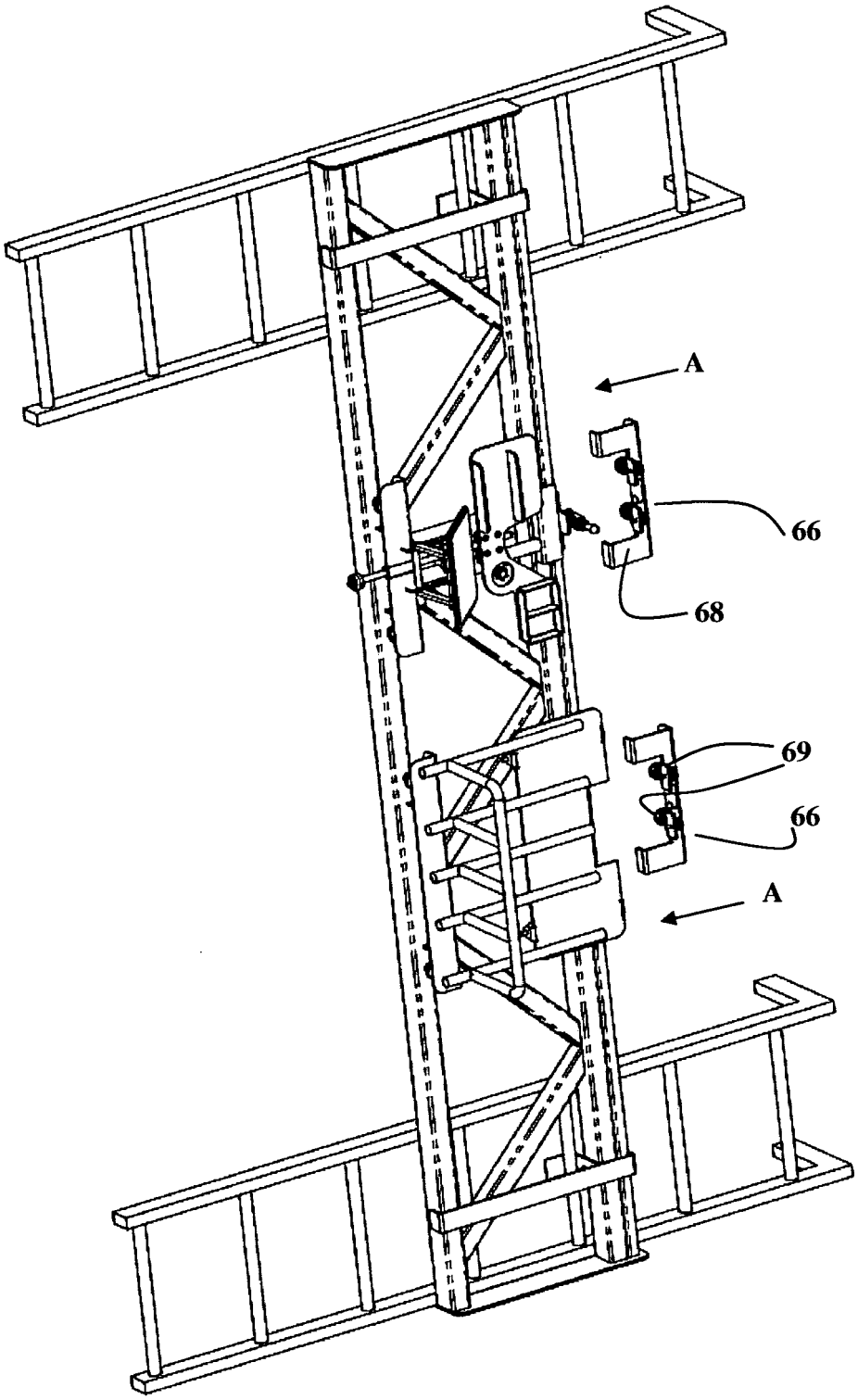


Figure 7

REFERENCES CITED IN THE DESCRIPTION

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