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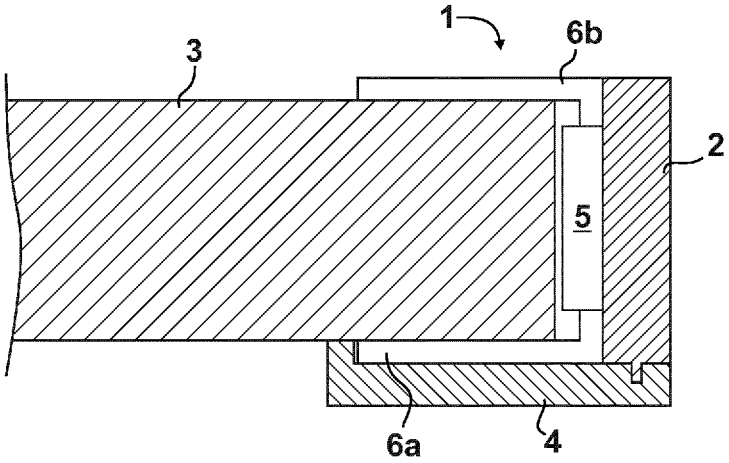

Fig. 1

(57) **Abstract:** The invention relates to device (1) for securing frames (2), comprising a retaining plate (5) and two cooperating clamping angles (6a, 6b), wherein a first clamping angle (6a) and/or a second clamping angle (6b) are arranged on the retaining plate (5) such that they can shift relative to same, such that a span width of the clamping angle (6a, 6b) can be altered. In order to guarantee a simple handling of the device (1), according to the invention, the clamping angles (6a, 6b) are arranged on the retaining plate (5) in a rotationally fixed manner and each have at least one flat clamping element and at least one connecting piece. The invention also relates to a use of a device (1) of this type. The invention further relates to two methods for securing frame (2) to a wall (3), wherein optionally a first clamping angle (6a) is connected to retaining plate (5) and the retaining plate (5) is secured to an inner side of the frame (2). In order to achieve a simple securing of a frame (2), according to the invention, the frame (2) is positioned in a wall opening, after which a second clamping angle (6b) opposite the first clamping angle (6a) is rotationally fixed to the retaining plate (5), after which the first clamping angle (6a) and the second clamping angle (6b) are connected to at least one adjusting means, and a span width is reduced until a sufficient clamping force onto the wall (3) is achieved to fix the frame (2) on the wall (3).

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— *mit internationalem Recherchenbericht (Artikel 21 Absatz 3)*

(57) Zusammenfassung: Die Erfindung betrifft eine Vorrichtung (1) zur Befestigung von Zargen (2), umfassend eine Halteplatte (5) und zwei zusammenwirkende Klemmwinkel (6a, 6b), wobei ein erster Klemmwinkel (6a) und/oder ein zweiter Klemmwinkel (6b) relativ zur Halteplatte (5) verschiebbar an dieser angeordnet sind, sodass eine Spannweite der Klemmwinkel (6a, 6b) veränderbar ist. Um eine einfache Handhabung der Vorrichtung (1) zu gewährleisten, ist erfindungsgemäß vorgesehen, dass die Klemmwinkel (6a, 6b) drehfest an der Halteplatte (5) angeordnet sind und jeweils zumindest ein flächiges Klemmelement und zumindest ein Verbindungsstück aufweisen. Weiter betrifft die Erfindung eine Verwendung einer derartigen Vorrichtung (1). Darüber hinaus betrifft die Erfindung zwei Verfahren zur Befestigung einer Zarge (2) an einer Mauer (3) wobei gegebenenfalls ein erster Klemmwinkel (6a) mit einer Halteplatte (5) verbunden wird und die Halteplatte (5) an einer Innenseite der Zarge (2) befestigt wird. Um eine einfache Befestigung einer Zarge (2) zu erreichen, ist erfindungsgemäß vorgesehen, dass die Zarge (2) in eine Maueröffnung eingestellt wird, wonach ein zweiter Klemmwinkel (6b) dem ersten Klemmwinkel (6a) gegenüberliegend mit der Halteplatte (5) drehfest verbunden wird, wonach der erste Klemmwinkel (6a) und der zweite Klemmwinkel (6b) mit zumindest einem Stellmittel verbunden werden und eine Spannweite reduziert wird, bis eine ausreichende Klemmkraft auf die Mauer (3) erreicht wird, um die Zarge (2) an der Mauer (3) zu fixieren.

Device And Method For Securing Frames

The invention relates to a device for securing frames, comprising a retaining plate and two cooperating clamping angles, wherein a first clamping angle and/or a second clamping angle are arranged on the retaining plate such that they can shift relative thereto, so that a span width of the clamping angles can be changed.

The invention also relates to a use of a device of this type.

The invention furthermore relates to a method for securing a frame to a wall, wherein a first clamping angle is connected to a retaining plate and the retaining plate is secured to an inner side of the frame.

Finally, the invention relates to a further method for securing a frame to a wall, wherein a retaining plate with an integrated clamping angle is secured to an inner side of the frame.

The securing of frames to a wall or an installation of frames in a wall opening typically occurs by means of PU foam, wherein the frame is first secured temporarily in the wall opening by means of one or more braces and/or shims, for example. The PU foam can then be introduced between the frame and the wall. This introduced PU foam must then cure for approximately one to two hours before excess foam can be removed and the installation of the frame, in particular with an attachment of molding or trim, can be continued.

A disadvantage here is, on the one hand, that the installation of frames normally takes a long time due to a waiting time caused for the most part by the PU foam. On the other hand, a quality of the securing is dependent on a temperature and a humidity. Thus, for example, the installation of a frame at low temperatures, for example below 4°C, and/or at a high relative humidity is not possible or only possible to a limited extent.

In addition, commercially available PU foam, in particular a two-component foam, comprises substances which are harmful to health and the environment, for which reason a disposal of

empty PU foam cans is costly, since these cans must be discarded as hazardous waste.

A further disadvantage is that the PU foam, in particular the two-component foam, can continue to expand following installation, whereby installed frames can shift or warp, and it may no longer be possible to close or open an installed door. As a result, an impacted frame must be removed and replaced, which leads to considerable additional costs and necessitates an enormous expenditure of time.

To avoid a use of PU foam, a clamp for securing a door jamb liner or a frame to a wall is known from document DE 1 012 448 B, wherein the frame is screwed to a retaining plate and after which the retaining plate is secured to a wall face by means of wall anchors. However, a handling of a device of this type has proven especially difficult, which is why a device of this type has not been used as of yet.

Thus, there is still a need for a device and method for the quick, simple and environmentally sustainable securing of a frame to a wall.

It is therefore the object of the invention to specify a device of the type named at the outset, with which a simple and environmentally sustainable securing of a frame in a wall opening can be achieved.

A further object of the invention is to specify a use for a device of this type.

It is also an object of the invention to specify a method of the type named at the outset, with which a frame can be secured in a wall opening in a simple and sustainable manner.

Finally, it is an object of the invention to specify a further method of the type named at the outset, with which a frame can be secured in a wall opening in a simple and sustainable manner.

The first object of the invention is attained with a device of the type named at the outset, which is embodied such that the clamping angles are arranged on the retaining plate in a rotationally fixed

retaining plate. A rotationally fixed mounting can likewise be achieved with a connecting piece having an oval cross section. Alternatively, two connecting pieces can be provided which can be embodied in any desired manner, in particular also round.

To change or set the span width of the clamping angles and, for example, reduce a maximum span width, it is advantageous if a first clamping angle comprises, preferably at a first end, at least one female thread for respectively receiving one adjusting means, for example a screw, and a second clamping angle respectively comprises, preferably on the clamping element, a connecting hole that corresponds to the female thread. An adjusting means, such as a screw for example, can thus be guided through the connecting hole corresponding to the female thread and screwed into the female thread, whereby the two clamping angles are connected and a maximum span width is set. It is beneficial if the hole has a smaller diameter than a screw head of a screw which is screwed into the female thread. In this case, the screw head preferably rests on the clamping element so that by screwing in the screw further or by actuating the adjusting means, a distance between the two clamping elements, or the span width, is reduced.

To firmly connect the clamping angles to the wall, it can be provided that at least one of the clamping elements comprises multiple holes for receiving one fastener each. Alternatively or additionally, a U-shaped profile, such as a rubber cap, can be placed on the clamping element to prevent the device from slipping, for instance on smooth surfaces such as a tiled wall, for example. It has proven effective that the clamping element comprises at least two, particularly preferably three holes in order to connect the clamping element to the wall in a fixed and, in particular, a rotationally fixed manner.

In addition, it is beneficial if the retaining plate comprises a central surface that is flanked by two contact surfaces, wherein the retaining plate is respectively beveled between the central surface and a contact surface. In this manner, a space is provided between the retaining plate and the frame, into which space the clamping angles, in particular with the connecting pieces thereof, can be slid. Alternatively, one receiving element each can be provided on the retaining plate for the connecting pieces. The receiving element can, for example, comprise at least one tube or at least one guide channel into which one connecting piece each can be inserted. To ensure a

rotationally fixed connection in this case, it can be provided that the clamping angles respectively comprise at least two rod-shaped, for example round, connecting pieces, and wherein corresponding guide channels or tubes into which the connecting pieces can be inserted are respectively provided on the retaining plate.

It is also advantageous if the retaining plate comprises at least one guide element for the clamping angles. As a result of the guide element(s), it is ensured that the clamping angles can be slid into the retaining plate, or in between the retaining plate and the frame, in a proper position. Additionally, the connecting piece of the first clamping angle can be clamped between the guide elements so that the retaining plate is connected to the clamping angle in a rotationally fixed manner.

To prevent a sliding by the device on rough substrates or wall faces, it is advantageous if the clamping angles comprise a toothing on a second end, in particular on the clamping element. This toothing is preferably positioned on a top side of the clamping element and can, for example, dig into a wall face, whereby the device is fixed. For this purpose, it has proven effective that an upper part of the clamping element is sloped in the direction of the guide elements. To protect the tiled wall or another surface against damage from the toothing, such as scratching for example, the U-shaped profile, in particular the rubber cap, can be pulled over the toothing or placed thereon.

In order to further simplify a handling of the device, it can be provided that the first clamping angle is embodied in one piece with the retaining plate or is permanently connected thereto. This eliminates an assembly of the first clamping angle with the retaining plate during a securing of the device to the frame.

The further object is obtained with a use of a device of this type for securing a frame to a wall. One advantage in particular results from a securing being able to occur independent of a temperature and a humidity, and the device used for this purpose being less harmful to health and the environment. In addition, the installed frame can be removed and, for example, replaced without any residues or damage. The devices already used can then be used again for a

replacement frame.

The first method-related object is attained with a method of the type named at the outset, wherein the frame is inserted into a wall opening, whereupon a second clamping angle is connected to the retaining plate in a rotationally fixed manner across from the first clamping angle, after which the first clamping angle and the second clamping angle are connected using at least one adjusting means and a span width is reduced until a sufficient clamping force on the wall is reached in order to fix the frame to the wall.

One advantage obtained with this method can in particular be seen in that the device can be easily secured to the frame, the frame can be easily inserted into the wall opening, and the frame can be clamped in place on the wall in a simple manner. This method can be performed quickly and carried out by one person alone.

The further method-related object is attained with a further method of the type named at the outset, wherein the frame is inserted into a wall opening, whereupon a second clamping angle is connected to the retaining plate in a rotationally fixed manner across from the first clamping angle, after which the first clamping angle and the second clamping angle are connected using at least one adjusting means and a span width is reduced until a sufficient clamping force on the wall is reached in order to fix the frame to the wall.

This method can also be performed quickly and carried out by one person alone, since the device can be easily secured to the frame, the frame can be easily inserted into the wall opening, and the frame can be clamped in place on the wall in a simple manner.

It is furthermore beneficial if a connecting piece of the second clamping angle is slid in between the retaining plate and the frame. In this manner, the connecting piece is fixed by the retaining plate itself, whereby a weight of the entire device is reduced. Alternatively, one or more guide channels for the first and/or second clamping angle can be provided on the retaining plate, for example, into which guide channels the clamping angle(s) can be slid.

In addition, it is beneficial if the frame is aligned before the span width is reduced, in particular to a minimum. In this case, for example, the span width can first be reduced a small distance so that the frame holds in the wall opening and is preferably fixed perpendicularly to a wall opening boundary. The frame can subsequently be adjusted, normally forwards and backwards or parallel to the wall opening boundary, after which the span width is further reduced so that the frame holds in the wall opening in an essentially fixed position. If necessary, a further precision adjustment of the frame can occur if the retaining plate and the clamping angles are not yet tightly connected to one another. For this purpose, the frame can be moved forwards and backwards in the wall opening together with the retaining plate, in particular relative to the clamping angles and along the connecting pieces.

It is also advantageous if the retaining plate is connected to the first clamping angle and/or the second clamping angle in a fixed position using a fixing means. As a result of a fixing of the retaining plate to the two clamping angles or to one of the two clamping angles, it is ensured that the frame remains in a precision-adjusted position. For this purpose one or more, in particular self-tapping, screws for example can be screwed in between the retaining plate and the first and/or second clamping angle.

Additional features, advantages and effects follow from the exemplary embodiments described below. In the drawings which are thereby referenced:

Fig. 1 shows a cross section through a secured frame with a device according to the invention;
Figs. 2 and 3 shows the device according to the invention;
Figs. 4 through 7 show different views of a first and a second clamping angle;
Figs. 8 through 10 show different views of a retaining plate.

Fig. 1 shows a schematic illustration of a device 1 for securing a frame 2 to a wall 3 or in a wall opening, wherein the device 1 is connected to a frame 2, bears against a decorative paneling 4 of the wall 3 on one side, and is clamped to the wall 3 on both sides. In this embodiment, the device 1 comprises a retaining plate 5 as well as two clamping angles 6a, 6b which respectively bear against the faces of the wall 3.

Fig. 2 shows the device 1 in a three-piece embodiment, comprising the retaining plate 5 and two clamping angles 6a, 6b. Alternatively, the device 1 can be embodied to be two-piece, wherein the retaining plate 5 is embodied with an integrated clamping angle 6a. The retaining plate 5 is essentially embodied such that it is raised in the center, wherein a first clamping angle 6a from one side and a second clamping angle 6b from a side across from the first clamping angle 6a are slid into or under the retaining plate 5. In the illustration shown, the clamping angles 6a, 6b have a large span width 7. To keep the clamping angles 6a, 6b in a proper position and guide them during a sliding-in, the retaining plate 5 comprises multiple guide elements 8. The guide elements 8 are in this case embodied to be flat.

Fig. 3 shows a top view of the device 1, wherein the clamping angles 6a, 6b have been fully slid into the retaining plate 5, wherein the span width 7 is reduced to a minimum determined by the retaining plate 5. During an installation of the frame 2, this minimum, or the minimum span width 7, is typically defined by a wall thickness.

In Fig. 4, two clamping angles 6a, 6b are illustrated which each comprise one clamping element 9 and at least one connecting piece 10. Here, the first clamping angle 6a essentially comprises two planar connecting pieces 10 with one notch each, which connecting pieces 10 are connected by the clamping element 9. The connecting piece 10 of the second clamping angle 6b likewise comprises a notch, which is open at one end so that this connecting piece 10 is essentially embodied to be U-shaped, wherein lateral, in particular rod-shaped, parts each have a rectangular cross section. Alternatively, two or more rod-shaped connecting pieces 10 that are connected to one another, preferably by the clamping element 9, can also be provided. The connecting pieces 10 can be embodied in any desired shape, in particular with a rectangular, square, triangular, polygonal, oval, or round cross section. If multiple connecting pieces 10 are provided, different shapes can be combined with one another as desired. However, if only a single rod-shaped connecting piece 10 is provided, then it preferably comprises at least one edge or is embodied to be oval, in order to ensure a rotationally fixed securing.

The notches in the connecting pieces 10 primarily serve to reduce the weight. In addition, at a

first end of the first clamping angle 6a, typically on the connecting pieces 10, two female threads 11, which are not illustrated, are provided. At a second end, a toothing 12 is provided both on the first and also on the second clamping angle 6b, preferably on a top side of the clamping element 9. Additionally, a U-shaped profile 13, such as a rubber cap for example, is illustrated which is advantageously formed from an elastic material, in particular a rubber or silicone. This U-shaped profile 13, or the rubber cap, can be pulled over the toothing 12 to prevent a slipping by the device 1 on a smooth surface such as a tiled wall, for example.

Fig. 5 shows a further illustration of the clamping angles 6a, 6b, wherein it can be seen that the clamping element 9 and the at least one connecting piece 10 form an angle of approximately 90°. In the illustrated embodiment, the clamping element 9 of the first clamping angle 6a is connected to the connecting piece 10 via a segment arranged at a slant. This segment preferably forms an angle between 10° and 80°, typically an angle of 45°, with the clamping element 9 and/or the connecting piece 10. The clamping element 9 of the second clamping angle 6b is in this case directly connected to the connecting piece 10, wherein a connection point is embodied in a curved manner.

Fig. 6 shows a front view of the clamping angles 6a, 6b with the clamping elements 9 in the foreground, wherein the clamping elements 9 comprise multiple holes 14 for securing or receiving a fixing means. On the one hand, these holes 14 serve to reduce the weight and, on the other hand, a fastening screw, for example, can be screwed into the wall 3 through these holes 14 in order to fix the device 1 to the wall 3. In addition, the clamping elements 9 respectively comprise notches which serve to reduce the weight and possibly simplify a handling. Furthermore, on the clamping element 9 of the second clamping angle 6b, two connecting holes 15 corresponding to the female thread 11 are provided, through which connecting holes 15 an adjusting means, such as a screw for example, can be screwed into the female thread 11 in order to connect the clamping angles 6a, 6b to one another and to set the span width 7. Particularly preferably, a maximum span width 7 can be set using the adjusting means, since a distance between the clamping elements 9 can only be increased so far before the second clamping element 9 touches a head of the adjusting means, for example, such as a screw head. Alternatively, a rod-shaped projection with a male thread can be provided on the at least one

connecting piece 10 in place of the female thread 11, for example, which projection can be guided through the connecting hole. A nut can be screwed onto the projection to set a span width 7 in this case. The connecting piece 10 can in particular be embodied to be fully rod-shaped and can comprise a male thread.

Fig. 7 shows a rear view of the clamping angles 6a, 6b, wherein the two female threads 11 that are arranged on the face of the connecting pieces 10 of the first clamping angle 6a are illustrated. The corresponding connecting holes 15 are provided on the clamping element 9 of the second clamping angle 6b. Normally, the connecting pieces 10 of the first clamping angle 6a and the second clamping angle 6b have a different outer distance 16 or width. Particularly preferably, an inner distance 17 between the connecting pieces 10 of the first clamping angle 6a corresponds to the outer distance 16 or width of the connecting piece 10 of the second clamping angle 6b. As a result, the second clamping angle 6b is guided by the first clamping angle 6a when being slid into the retaining plate 5.

Fig. 8 shows a top view of the retaining plate 5, wherein a central surface 18 is flanked by two contact surfaces 19. In addition, a further contact surface 19 is provided which is arranged centrally in the retaining plate 5. The contact surfaces 19 each comprise at least one mounting hole 20, preferably multiple mounting holes 20. With the aid of the mounting holes 20, the retaining plate 5 can be screwed together with a frame. Furthermore, the retaining plate 5 is respectively embodied to be beveled between the contact surfaces 19 and the central surface 18. In addition, multiple guide elements 8 are provided which are used for a guidance of the clamping angles 6a, 6b, in particular the connecting pieces 10 of the first clamping element 9. When the retaining plate 5 is screwed onto the frame 2, for example through the mounting holes 20, the guide elements 8 of this embodiment also bear against the frame 2. If necessary, the guide elements 8 can also comprise mounting holes 20. Normally, the retaining plate 5 comprises at least two, in particular six, preferably seven mounting holes 20.

Fig. 9 shows a front view of the retaining plate 5, wherein one beveled connection each is provided between the central surface 18 and the respective contact surface 19. Furthermore, a space into which the clamping angles 6a, 6b can be slid is provided beneath the central

surface 18. Additionally, two guide elements 8 are illustrated.

In Fig. 10, a view of a bottom side of the retaining plate 5 is illustrated. In this case, the guide elements 8 are provided such that they adjoin lateral contact surfaces 19 and as a widening of the contact surfaces 19 in some places. Typically, a distance between two opposing guide elements 8, or a guide width 21, roughly corresponds to a width of the connecting piece 10 or the outer distance 16 between the connecting pieces 10 of the first clamping angle 6a. It is thus ensured that the first clamping angle 6a is guided in a proper position and does not become wedged. Furthermore, the retaining plate 5 preferably comprises a notch that also serves to reduce the weight.

With a device 1 according to the invention, such as that illustrated in Fig. 1 through Fig. 10, a frame 2 can be secured to a wall 3 or in a wall opening in a simple manner.

For this purpose, with the device 1 embodied in three pieces the first clamping element 9 is connected to the retaining plate 5 in a first step. The first clamping element 9 can thereby be slid into the retaining plate 5, for example, and can be clamped preferably between the guide elements 8. This first step is eliminated for the device 1 embodied in two pieces, since the retaining plate 5 is already embodied with an integrated clamping element 9.

The retaining plate 5 is then secured to the frame 2, in particular to an inner side of the frame 2. It has proven effective that the retaining plate 5 be screwed onto the frame 2. Alternatively, the retaining plate 5 can be glued together with the frame 2. To mount the frame 2 in the most gap-free manner possible, the clamping element 9 is in this case preferably positioned against a rabbet or decorative paneling 4 of the frame 2.

In a further step, the frame 2 is inserted into the corresponding wall opening and the first clamping angle 6a is positioned with the clamping element 9 thereof against a first face of the wall 3. On a side of the retaining plate 5 across from the first clamping angle 6a, the second clamping angle 6b is then, as shown in Fig. 1 and Fig. 2, slid between the retaining plate 5 and the frame 2 until the clamping element 9 of the second clamping angle 6b bears against a second

face of the wall 3. Alternatively, the second clamping angle 6b can be slid into a guide channel possibly provided for this purpose. In the case of tiled walls or other smooth surfaces, the U-shaped profile 13 or the rubber cap is normally pulled over the toothing 12 of the clamping element 9.

After this, screws can be screwed into the female thread 11 through the connecting holes 15 in order to connect the two clamping angles 6a, 6b to one another. The span width 7 is thus reduced, whereby the device 1 is clamped in place, preferably lightly, on the wall 3. At this point, the frame 2 can still be trued or adjusted, since the mounting plate 5 can be shifted relative to the clamping angles 6a, 6b.

Once the frame 2 has been trued and/or straightened, the screws are screwed further into the female thread 11 in a next step until the span width 7 is at a minimum and, accordingly, a clamping force is at a maximum. Here, the minimum of the span width 7 is defined by a wall thickness. In the three-piece embodiment of the device 1, the frame 2 can then be readjusted, especially if the retaining plate 5 and the first clamping angle 6a are not connected in a fixed position.

Finally, a fastener can be introduced between the retaining plate 5 and the clamping angles 6a, 6b so that the retaining plate 5 is connected to the clamping angles 6a, 6b in a fixed position. For this purpose, one screw each, for example a self-tapping screw, is preferably screwed in between the beveled connection and the first clamping angle 6a.

Depending on a length of the frame 2, one or more devices 1 are used for the securing, and the individual steps are repeated accordingly for each device 1. For an installation of a door, at least two, in particular three, devices 1 are used on the frame 2, for example, along a long side of the door. One device 1 is typically fixed to the frame 2 along a short side of the door. If necessary, the device 1 along the short side of the door can be omitted.

As a final step, the clamping elements 9 can immediately be covered with a decorative paneling 4, molding, or trim, and a visually appealing installation of the frame 2 can thus be

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completed. To remove the frame 2 in a non-destructive manner, all connections can simply be undone and the frame 2 can be removed from the wall opening.

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Patent Claims

1. A device for securing a frame to a wall, comprising a retaining plate and two cooperating clamping angles, characterized in that a first clamping angle and a second clamping angle are arranged on the retaining plate so as to be displaceable relative thereto, so that a span width of the clamping angles can be changed, wherein the clamping angles are arranged on the retaining plate in a rotationally fixed manner and in each case have at least one flat clamping element and at least one connecting piece.

2. The device according to claim 1, characterized in that the clamping element and the at least one connecting piece draw an angle of approximately 90°.

3. The device according to claim 1 or 2, characterized in that the at least one connecting piece has an essentially polygonal, preferably rectangular, cross section.

4. The device according to claim 1 or 3, characterized in that a first clamping angle has, preferably on a first end, at least one internal thread for receiving a respective adjusting element, for example a screw, and a second clamping angle has, preferably on the clamping element, a respective connecting hole, which corresponds to the internal thread.

5. The device according to one of claims 1 to 4, characterized in that at least one of the clamping elements has several holes for receiving a respective fastening means.

6. The device according to one of claims 1 to 5, characterized in that the retaining plate has a central surface, which is flanked by two contact surfaces, wherein the retaining plate is in each case beveled between the central surface and a contact surface.

7. The device according to one of claims 1 to 6, characterized in that the retaining plate has at least one guide element for the clamping angles.

8. The device according to one of claims 1 to 7, characterized in that the clamping angles have a toothing on a second end, in particular on the clamping element.

9. Use of a device according to one of claims 1 to 8 for fastening a frame to a wall.

10. A method for fastening a frame to a wall by means of a device according to one of claims 1 to 8, wherein a first clamping angle is connected to a retaining plate and the retaining plate is fastened to an inner side of the frame, characterized in that the frame is inserted into a wall opening, whereupon a second clamping angle is connected to the retaining plate in a rotationally fixed manner so as to be located opposite the first clamping angle, whereupon the first clamping angle and the second clamping angle are connected by means of at least one adjusting means and a span width is reduced until a sufficient clamping force on the wall is attained in order to fix the frame to the wall.

11. The method according to claim 10, characterized in that a connecting piece of the second clamping angle is inserted between the retaining plate and the frame.

12. The method according to one of claims 10 or 11, characterized in that the frame is aligned before the span width is reduced, in particular to a minimum.

13. The method according to one of claims 10 to 12, characterized in that the retaining plate is connected to the first clamping angle and/or the second clamping angle in a fixed position by means of a fixing means.

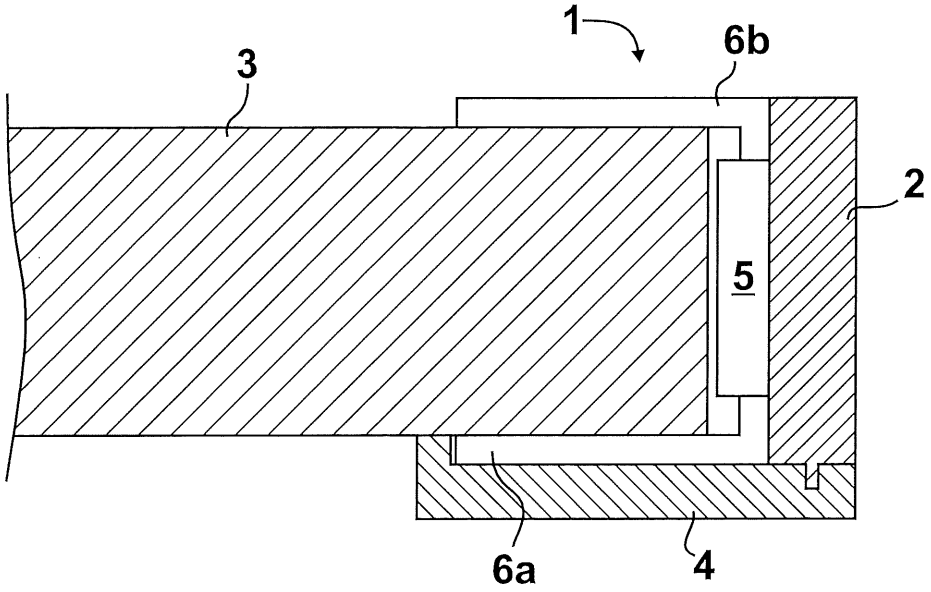

Fig. 1

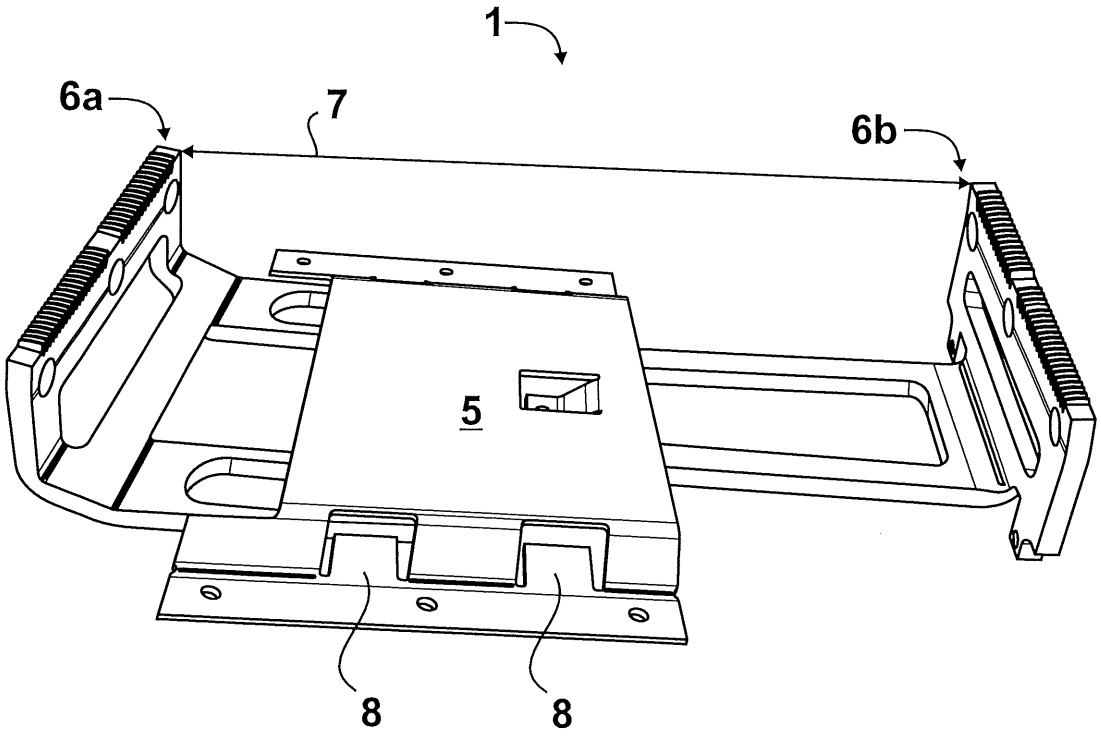

Fig. 2

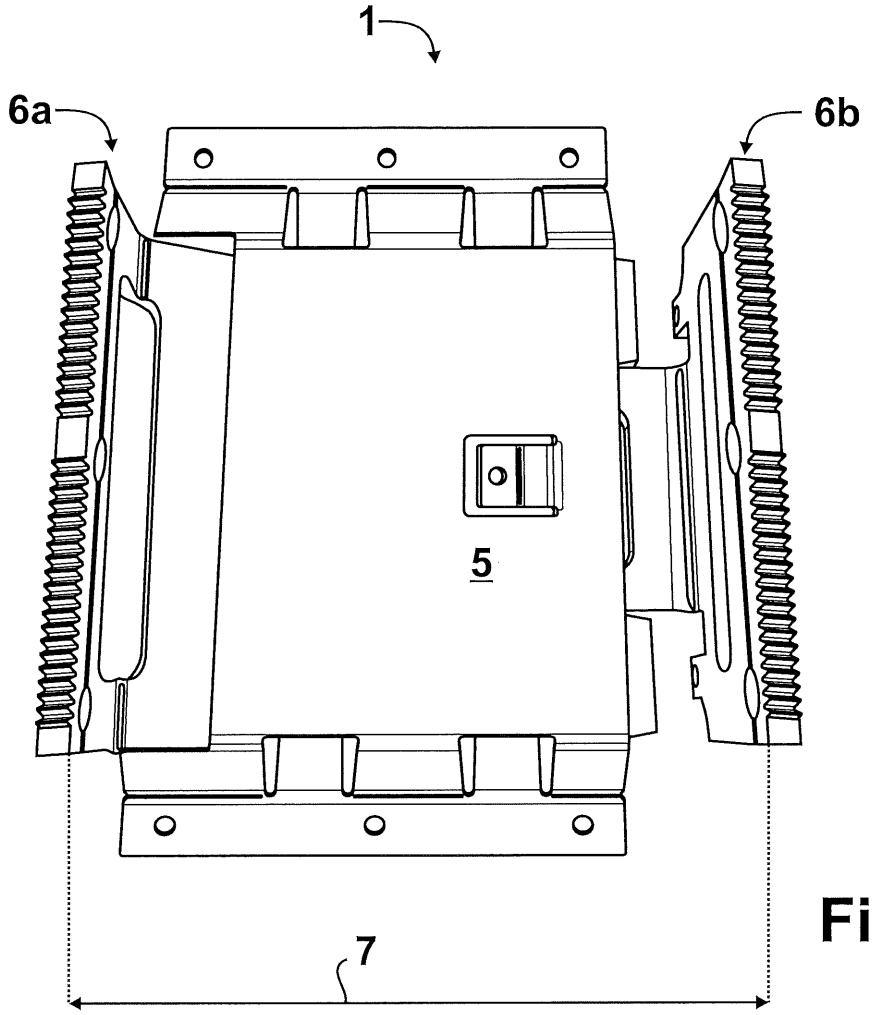

Fig. 3

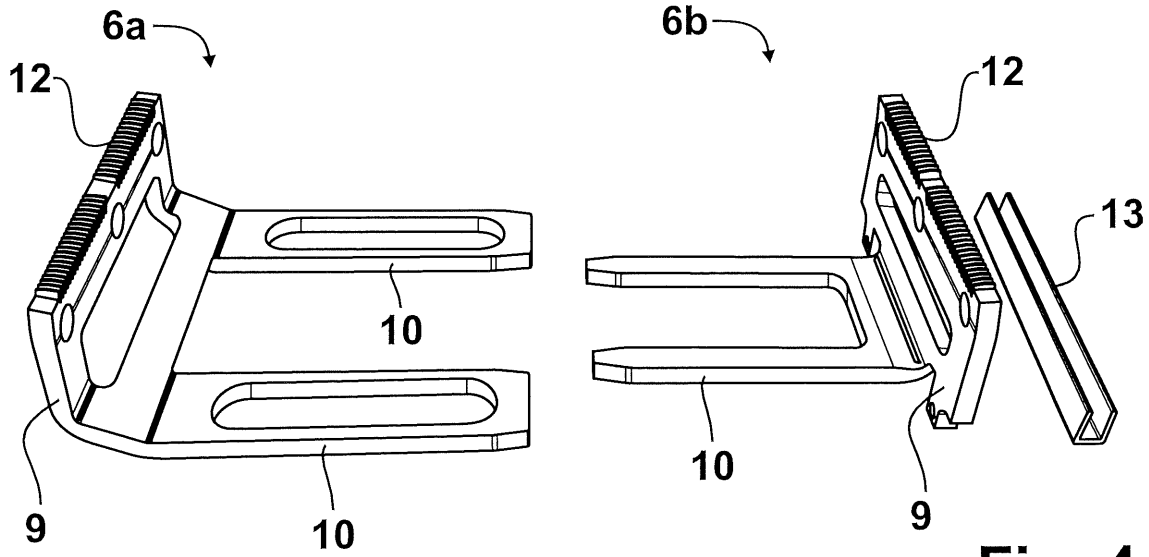

Fig. 4

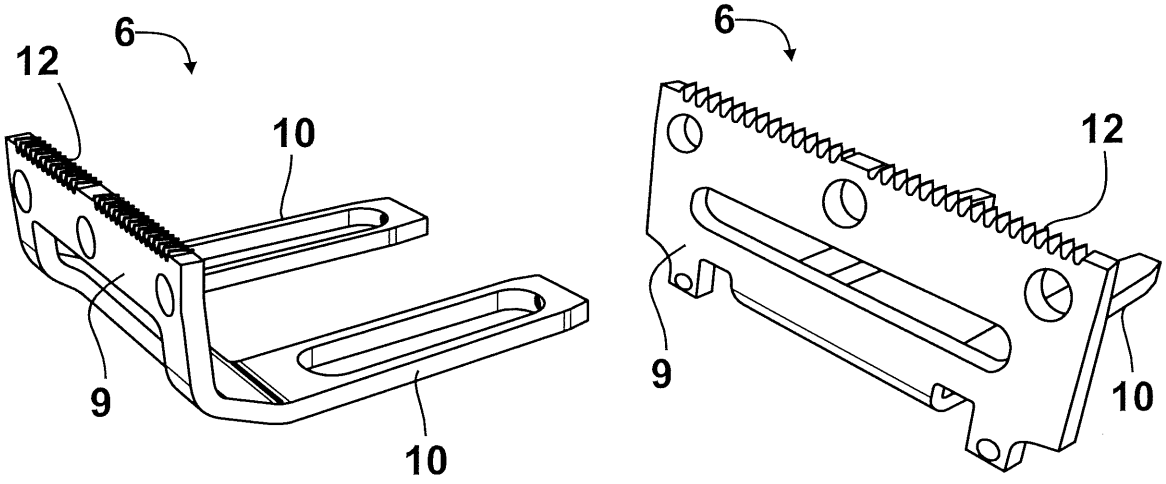

Fig. 5

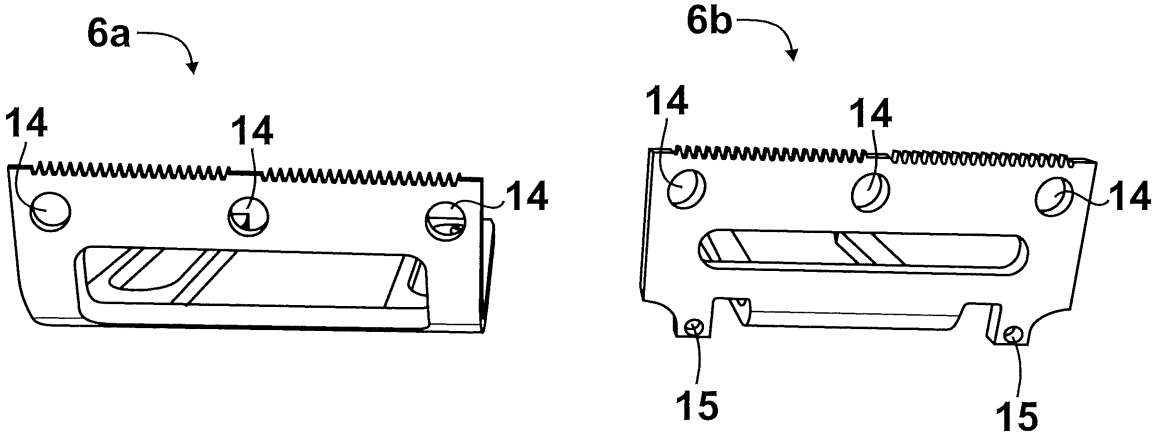

Fig. 6

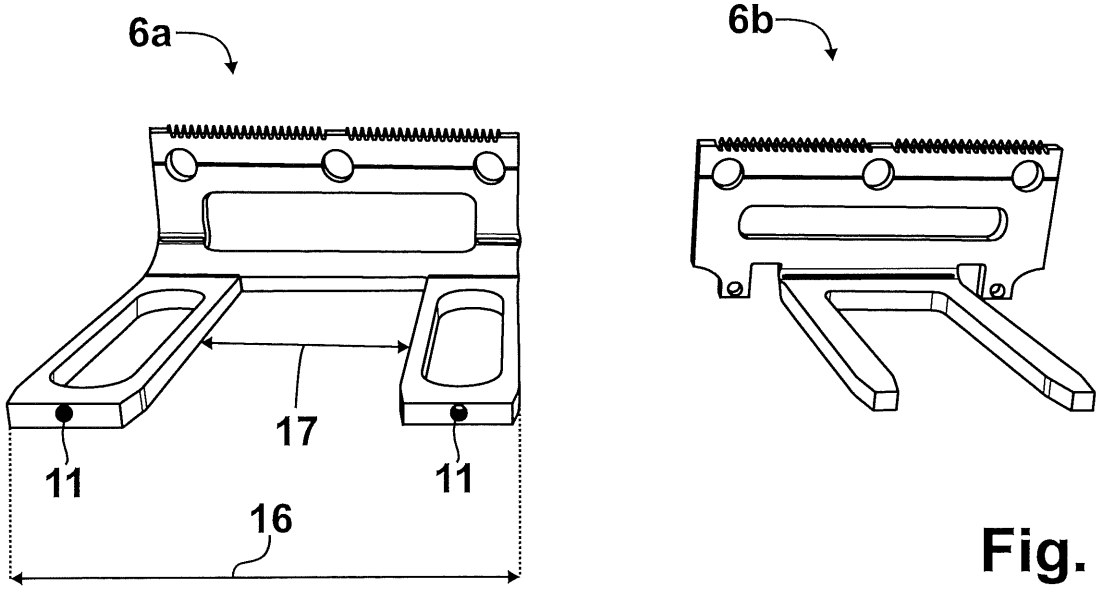

Fig. 7

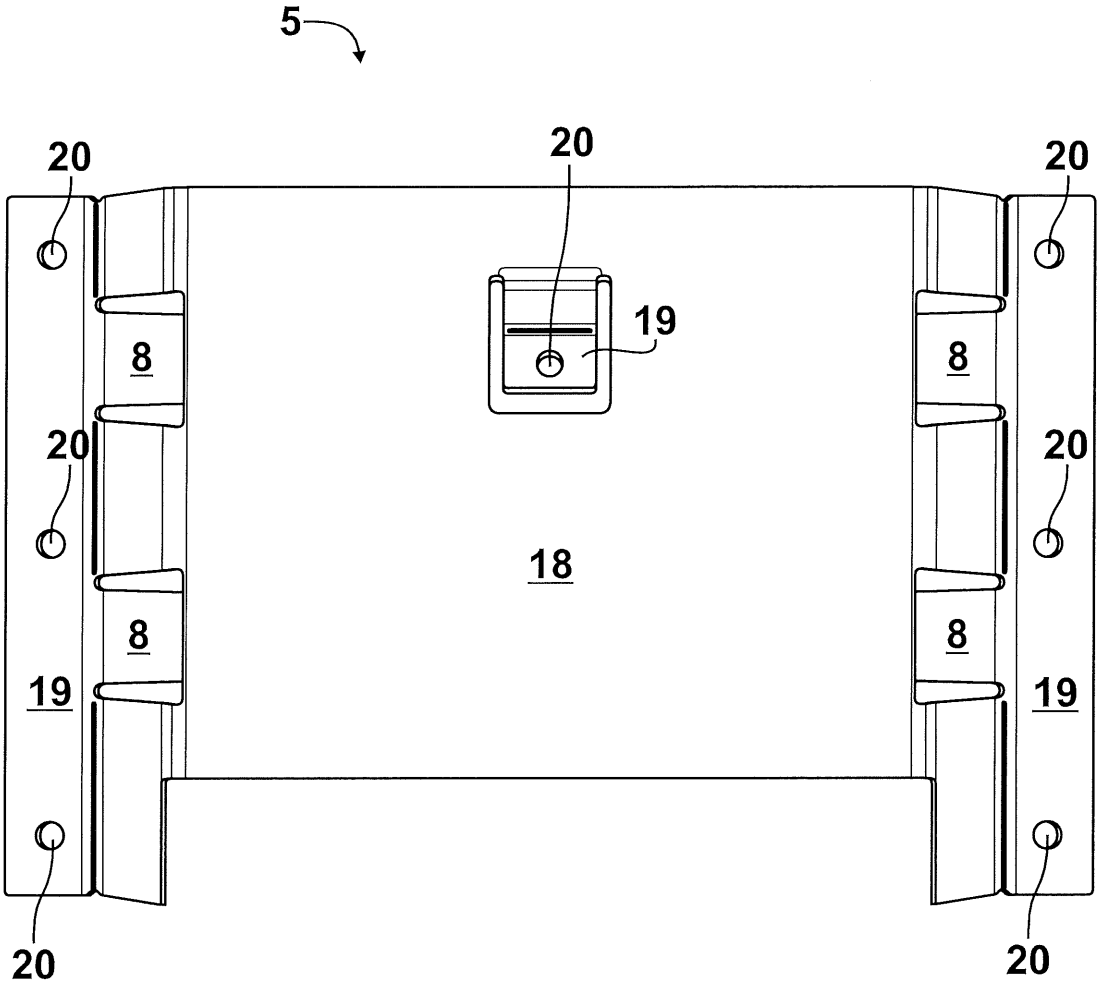

Fig. 8

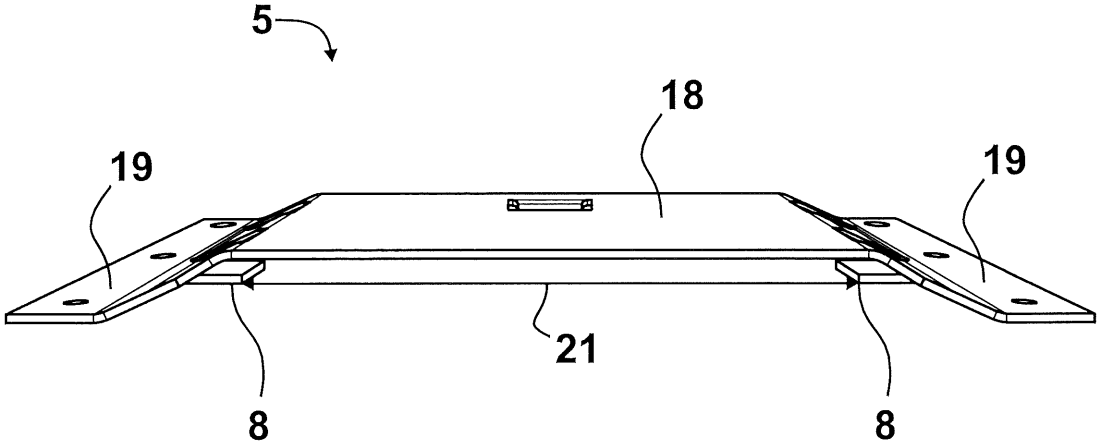

Fig. 9

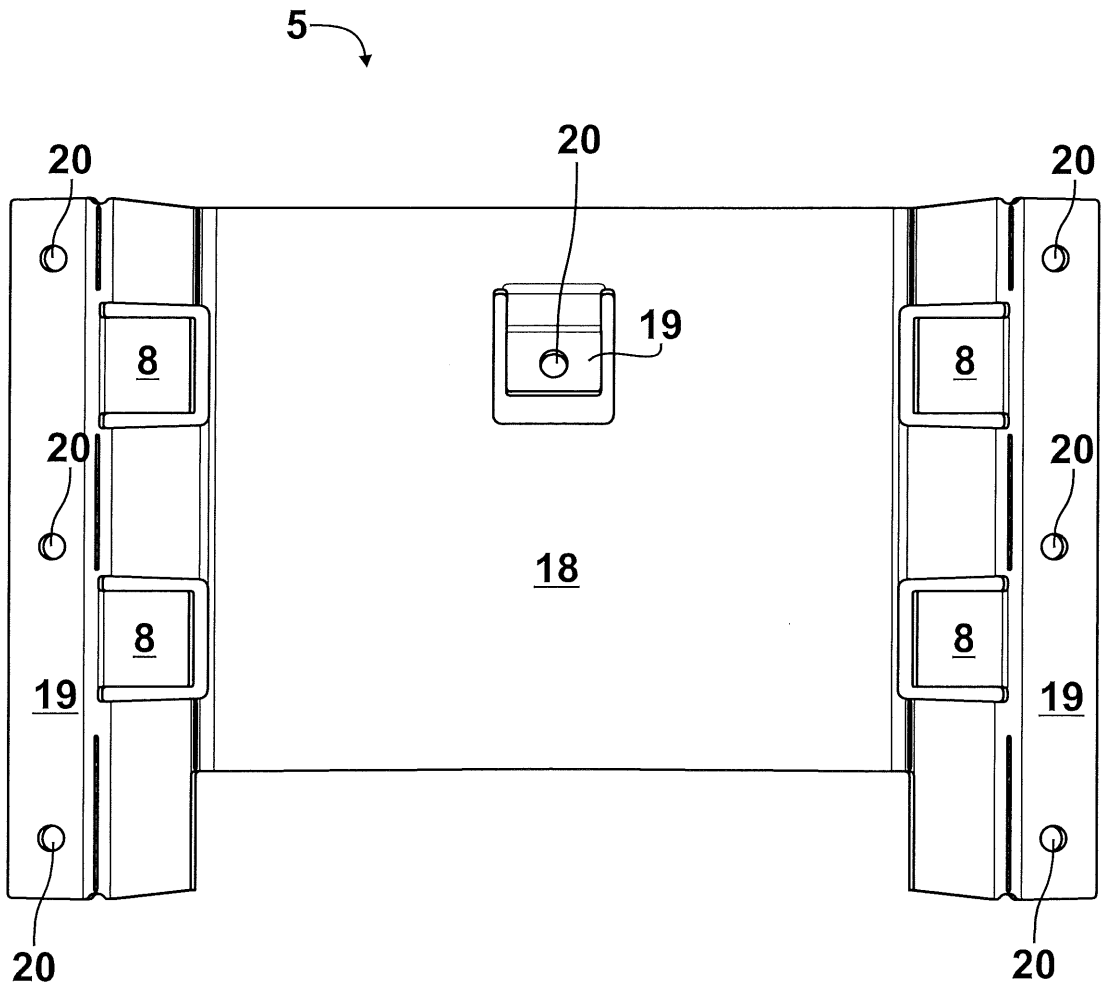

Fig. 10