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(54) METHOD FOR PRODUCING TIMBER CONSTRUCTION AND TIMBER CONSTRUCTION

VERFAHREN ZUM HERSTELLEN EINER HOLZKONSTRUKTION UND HOLZKONSTRUKTION

PROCEDE DE REALISATION D'UNE STRUCTURE EN BOIS ET STRUCTURE EN BOIS

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FR-A- 2 678 657
SE-B- 457 456
SE-C- 213 847

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Description

The object of the invention is a method for producing a log construction, according to which method a log wall and an additional wall at a distance from the log wall are formed to make the log construction, as known from FR-A-2 678 657.

Using a log house as a modern house in year-round residential use has been restricted by the fact that the thermal insulation capacity of log walls is not sufficient as such. Thermal insulation must, therefore, be added to the log walls. The insulation is usually added on the log wall, on its interior surface, and covered by boards or panelling nailed to posts.

In a log wall construction, however, this type of insulation becomes a problem because the log wall subsides considerably with time. The board or panel construction used to cover the insulation, on the hand, does not subside at all. Especially with window openings and doorways it is extremely difficult to take into account changes to take place later during the construction stage. At these openings there should, therefore, be clear play to allow for the settling of the logs.

It is also known to build a log wall as a double construction. In this way, the interior wall and the outer wall can be interlocked, which means that no play needs to be built in for windows and doors. This type of construction has, however, proved problematic when the wall construction dries with time. This is because it has been found that gaps are formed in the interior logs as the interior wall dries more than the outer wall. Thus, humidity from inside can pass between the walls, but not all the way out as the outer wall is more tightly sealed. If the wall construction does not breathe naturally, the humidity remaining inside the wall construction will be extremely detrimental to the durability of the construction.

The aim of the present invention is to eliminate the above problems and to achieve a method for producing a log wall construction in a new manner according to the characterizing part of claim 1 and 4. It is characteristic of the method relating to the invention that the additional wall is formed of light-weight logs outside the log wall, at a distance from it, so that a light-weight log is interlocked with a log of the log wall located at essentially the same point. According to the invention, the light-weight logs are wooden elements which are substantially thinner than the actual logs of the construction.

According to a preferred embodiment of the invention, the light-weight logs of the additional wall are placed outside the log wall, at a distance from the log wall, in the vertical grooves formed at the ends of the logs of adjacent walls, so that the light-weight log is positioned at the same point as the log and parallel to it. The light-weight logs are essentially of the same height as the logs, and their appearance corresponds to that of a log.

According to another preferred embodiment, a horizontal light-weight outer wall log is interlocked by means of a connecting piece with a log located at the same point to form an integrated unit, or small element.

At the corner of the additional wall a vertical light-weight corner log is mounted in the vertical grooves formed at the ends of the logs of the log wall, so that the light-weight corner log forms an angle of essentially 45° with the wall surfaces. The light-weight corner log is not interlocked with the logs but can slide freely in relation to the logs as the logs settle.

The object of the invention also comprises a log wall construction including a log wall and an additional wall located at a distance from it. It is characteristic of the log construction relating to the invention that the additional wall incorporates light-weight logs located outside the log wall, at a distance from it, and that the light-weight log of the additional wall is joined to the log of the log wall located at essentially the same point. The grooves of the light-weight logs have vertical play.

By means of the invention, the settling of the additional wall located outside the log wall construction can be made to correspond to the settling of the interior log wall, because the additional wall located outside will take in the humidity from outside. Since the interior log wall is, however, more tightly sealed and thicker than the outer additional wall made of light-weight logs, the wall construction breathes naturally and no separate damp proofing is necessarily required.

According to the invention, doorways and window openings can be made to fit more tightly, as the logs of the interior log wall and the light-weight logs fastened to them expand and contract together.

An advantageous aspect of the construction relating to the invention is that the interior log wall is not exposed to the weather, which means that the wall will remain unchanged. The outer light-weight log panelling takes the strain caused by the weather, and it can, if necessary, easily be renewed without the repair work disturbing living. The outer covering is quicker and easier to mount than the interior and the appearance can be made to correspond to that of a log wall.

According to a preferred embodiment, in the log construction relating to the invention, a horizontal light-weight outer wall log is joined, by means of at least one connecting piece, to a log located at the same point to form an integrated unit, or small element.

According to yet another embodiment, the small element formed by the light-weight outer wall log and the log is joined to the small element of the adjacent wall, the element being essentially at the same height, so that the small elements of all walls at essentially the same height form a frame-like layer element.

The invention is described in the following by means of an example, with reference to the appended drawings in which

Figure 1 shows a horizontal section of the log wall construction relating to the invention as seen from above.

Figure 2 shows a vertical section of the log wall construction along line II-II of figure 1.

Figure 3 shows a detail of the log wall construction of figure 2.

Figure 4 shows a detail of figure 2.

Figure 5 shows a detail of the end of a log belonging to the log wall construction of figure 1.

Figure 6 shows axonometrically the joint between the logs of figure 5.

Figure 7 corresponds to figure 6 and shows axonometrically a log joint to which the light-weight log panelling relating to the invention has been added.

Figure 8 shows a detail of the log wall construction of figure 1.

Figure 9 shows the layer element of the log wall construction relating to the invention.

Figure 1 shows a horizontal section of the log wall construction relating to the invention, as seen from above. The figure shows that outside the log wall 10 located on the interior side of the construction is mounted light-weight log panelling 11 so that the ends of the light-weight outer wall logs 12 are interlocked in the grooves 14 of the logs 13. Each horizontal light-weight outer wall log 12 is interlocked by means of a wooden connecting piece 15 with a parallel log 13 located at the same point. Each connecting piece 15 is fastened both to a log 13 and a light-weight log 12 located at the same point by means of screws 16 screwed obliquely from above.

At the ends of the logs 13 grooves 14 are formed, at the same point on both sides. Thus, in the first grooves the light-weight outer wall logs 12 can be mounted and in the second grooves, on the opposite side of the logs 13, the vertical light-weight corner logs 17, at the corners of the log wall construction. The grooves 14 may be identical on both sides of the log 13, because the edges of the light-weight corner logs 17 have been designed to fit in the grooves 14. In the construction of figure 1, the space between the log wall 10 and the outer panelling 11 formed of light-weight logs 12 is filled with insulating material 18, such as blowing wool.

Figure 2 shows a vertical section of the log wall construction of figure 1. Outside the interior log wall 10 is located, at a distance, outer log panelling 11 formed of light-weight logs 12. The light-weight outer wall logs 12 are located in the grooves 14 formed in the logs 13. Each light-weight log 12 is fastened to a log 13 located at the corresponding point by means of a wooden connecting piece 15 and screws 16 screwed obliquely from above. In figure 2, the log 13, the connecting piece 15 and the light-weight log 12 together form a small element 23 of the wall construction which acts as an integrated unit in the wall construction. In other words, the light-weight outer wall log 12 settles in the wall construction at the same time as the actual wall log 13 settles.

Figure 3 shows a detail of the log wall construction of figure 2. The figure shows that the light-weight outer wall log 12, the log 13 located at the same point and the connecting piece 15 between them form - together with the screws 16 - a solid unit, or small element 23 which moves as a whole when the log construction settles. Thus, in the construction relating to the invention, the interior wall and outer wall do not expand and contract in different ways as in known constructions.

Figure 4 shows a detail of figure 2, where a part of the log wall 10 and a part of the outer panelling 11 formed by the light-weight logs 12 can be seen. The logs 13 and 13b have been placed on top of each other so that they form the interior wall of the building. To each log 13 is joined a light-weight outer wall log 12 by means of a connecting piece 15. In this example case, the connecting piece 15 has been fastened to the log 13 and to the light-weight outer wall log 12 by means of screws 16. In this way the log 13, the connecting piece 15 and the light-weight log 12 located at the same point as the log 13 can be made to form the unit shown in figure 3, that is, the small element 23.

Figure 4 also shows that the log 13b rests in the usual manner on the log 13 below it, but the light-weight outer wall log 12b joined by means of the connecting piece 15b to the upper log 13b does not rest with its entire weight on the light-weight log 12 below it. This is because a tongue-and-groove joint 21 has been formed between the light-weight outer wall logs 12 and 12b, the said joint allowing for vertical adjusting movement between these light-weight logs.

The possibility for this type of movement is important because the log construction will in any case settle with time. Therefore, the outer wall panelling formed of light-weight logs should not be made to bear the load intended for a log wall. Another advantage of this type of solution is that the wall construction breathes naturally. Thus, for example, humidity from inside the building can easily pass out through the outer wall panelling formed of light-weight logs.

Figure 5 shows a detail of the end of a log 13 of the log wall construction relating to the invention. At the end of the log 13 is a log joint notch 19, in the known manner, but in addition, on both sides of the end of the log 13 there are, in accordance with the invention, similar notches 14 for the light-weight outer wall log and the light-weight corner log.

Figure 6 shows axonometrically the joint between the logs 13 of figure 5. The log joint is fully known as such, but the figure clearly shows the grooves 14 on both sides of the ends of both logs 13, the said grooves forming vertical guides in the construction for both the light-weight logs of the outer wall and the light-weight logs of the corner.

In figure 7, to the log joint of figure 6 have been added, in accordance with the invention, light-weight outer wall logs 12 in the grooves 14 at the ends of the logs 13, and at the corner a light-weight corner log 17. Each log 13 and the light-weight outer wall log 12 joined to it by

means of the connecting piece 15 form an integrated unit, or small element 23 which moves as one piece when the log construction settles. The light-weight corner log 17 is not interlocked with the logs 13, but is able to slide freely in relation to the logs as the logs settle.

Figure 8 shows in greater detail the structure of the corner part of the log wall construction of figure 1. The grooves 14 formed on both sides of the ends of the logs 13 have been dimensioned so that the light-weight outer wall log 12 fits well into the groove. The light-weight corner log 17 is also placed in a similar groove 14 at the end of the log 13. Since the light-weight corner log 17 is as thick as the light-weight outer wall log 12, but is situated at an angle of 45°, the edges of the light-weight corner log 17 must also be bevelled to an angle of 45°. In addition, on the inner surface of the light-weight corner log 17 are formed small additional grooves 20, by means of which the bevelled edge parts of the light-weight corner log 17 can be made to press completely inside the grooves 14.

In the structural example of figure 8, the light-weight outer wall log 12 is also fastened to the log 13 by means of a screw 22. Thus the adjacent small elements 23 interlocked with each other form a frame-like layer element 24, as shown in figure 9.

Figure 9 shows the layer element 24 of the log wall construction relating to the invention, the said element having been formed by joining together the adjacent small elements 23. The frame-like layer element 24 thus comprises the logs 13 of one layer on the inside of the wall construction, and at the same point on the outside, the light-weight logs 12, and the connecting pieces 15 between the logs 13 and light-weight logs 12. In the wall construction of a log building, the layer element 24 forms an integrated frame having the height of one log layer, the said frame settling as one piece when the log construction settles.

It is obvious to a person skilled in the art that the different embodiments of the invention may vary within the scope of the claims presented below.

Claims

1. A method for producing a log construction, according to which method to make the log construction an actual log wall (10) is formed, where the actual logs (13) are mounted horizontal on top of each other so that the log rests on the log below it, and an additional wall (11) is formed at a distance from the actual log wall,
characterized in

   - that the additional wall (11) is formed outside the actual log wall (10) of such horizontal light-weight outer wall logs (12) which have a tongue-and-groove joint (21) between them allowing for vertical movement,
   - that the light-weight outer wall log (12) is interlocked by means of at least one connecting piece (15) with an actual log (13) located at the corresponding point, so that the light-weight outer wall log (12), the actual log (13) and the connecting pieces (15) form a solid and integrated unit, or small element (23),
   - that the small element (23) rests on the other small element below it so that only the actual log of the first small element rests on the actual log of the second small element below it,
   - and that the grooves of the light-weight outer wall logs (12) of the two small elements (23) mounted on top of each other have vertical play so that the tongue-and-groove joint (21) is allowing for vertical movement between the light-weight outer wall logs as the actual logs (13) settle.

2. A method as claimed in claim 1,
characterized in that the horizontal light-weight outer wall log (12) of the additional wall (11) is placed outside the actual log wall (10) at a distance from the actual log, in the vertical grooves (14) formed at the free ends of the actual logs (13) of adjacent walls and interlocked by means of at least two connecting pieces (15) with an actual log (13) located at the corresponding point to form a solid and integrated unit, or small element (23).

3. A method as claimed in claim 1 or 2,
characterized in that at the corner outside the actual log wall (10) the additional wall (11) is formed so that in the vertical grooves (14) placed at the ends of the actual logs (13) of adjacent log walls, a vertical light-weight corner log (17) is mounted so that the light-weight corner log forms an angle of essentially 45° with the wall surfaces, and that the light-weight corner log (17) can slide freely in relation to the actual logs (13) as the actual logs (13) settle.

4. A log wall construction, comprising an actual log wall (10) where the actual logs (13) are placed horizontal on top of each other so that the log rests on the log below it, and an additional wall (11) located at a distance from the actual log wall, **characterized** in

   - that the additional wall (11) comprises horizontal light-weight outer wall logs (12) which are placed outside the actual log wall (10) and have a tongue-and-groove joint (21) between them allowing for vertical movement,
   - that between the actual log (13) and the light-weight outer wall log (12) located at the corresponding point there is at least one connecting piece (15) so that the actual log (13), the light-

weight outer wall log (12) and the connecting piece (15) form a solid and integrated unit, or small element (23),

- that load bearing of the small element (23) against the other small element (23) below it is located at the actual log (13) of the small element (23),
- and that the tongue-and-groove joint (21) between the two light-weight outer wall logs (12) of two small elements (23) mounted on top of each other have vertical play so that the tongue-and-groove joint (21) is allowing for vertical movement between the light-weight outer wall logs (12) as the actual logs (13) settle.

5. A log wall construction as claimed in claim 4, **characterized** in

- that the horizontal light-weight outer wall log (12) of the additional wall (11) is placed outside the actual log wall (10) at a distance from the actual log (13), in the vertical grooves (14) formed at the free ends of the actual logs (13) of adjacent walls,
- and that between the actual log (13) and the light-weight outer wall log (12) placed at the corresponding point there are at least two connecting pieces (15) joining the actual log (13) and the light-weight outer wall log (12) a solid and integrated unit, or small element (23).

6. A log wall construction as claimed in claim 4 or 5, **characterized** in

- that at the corner of the additional wall (11) a vertical light-weight corner log (17) is placed in the vertical grooves (14) at the ends of the actual logs (13) of adjacent log walls,
- that the light-weight corner log (17) forms an angle of essentially 45° with the wall surfaces,
- and that the light-weight corner log (17) can slide freely in relation to the actual logs (13) as the actual logs (13) settle.

7. A log construction as claimed in claim 4, 5 or 6, **characterized** in

- that the solid small element (23) comprised by the light-weight outer wall log (12), the connecting pieces (15) and the actual log (13) is so joined to the corresponding small elements (23) of the adjacent walls located at essentially the same height, that the small elements (23) of all walls at essentially the same height, form a frame-like layer element (24),
- that the layer element (24) rests on the other layer element (24) so that only the actual logs (13) of the layer element (24) above rest on the actual logs (13) of the layer element (24) below,
- and that the tongue-and-groove joint (21) between the two light-weight outer wall logs (12) of the two layer elements (24) mounted on top of each other have vertical play so that the tongue-and-groove joint (21) is allowing for vertical movement between the light-weight outer wall logs (12) as the actual logs (13) of the layer elements (24) settle.

Patentansprüche

1. Verfahren zum Herstellen einer Balkenkonstruktion, bei dem die Balkenkonstruktion zu einer Blockwand (10) ausgebildet wird, wobei die Balken (13) horizontal einer über dem anderen befestigt werden, so daß jeweils ein Balken auf dem Balken darunter ruht, und wobei in einem Abstand von der eigentlichen Blockwand eine zusätzliche Wand (11) gebildet wird,
dadurch gekennzeichnet,

- daß die zusätzliche Wand (11) außerhalb der eigentlichen Blockwand (10) aus solchen horizontalen Leichtbau-Außenwandbalken (12) hergestellt wird, die zwischen sich eine Nut-und-Feder-Verbindung (21) aufweisen, die eine vertikale Bewegung zuläßt,

- daß der Leichtbau-Außenwandbalken (12) mittels mindestens eines Verbindungsstücks (15) mit einem an dem entsprechenden Punkt angeordneten Balken (13) verriegelt ist, so daß der Leichtbau-Außenwandbalken (12), der Balken (13) und die Verbindungsstücke (15) eine feste und integrierte Einheit oder ein kleines Element (23) bilden,

- daß das kleine Element (23) auf dem anderen kleinen Element unter ihm ruht, so daß nur der Balken des ersten kleinen Elements auf dem Balken des zweiten kleinen Elements unter ihm ruht,

- und daß die Nuten der Leichtbau-Außenwandbalken (12) der zwei kleinen Elemente (23), die übereinander befestigt sind, ein vertikales Spiel aufweisen, so daß die Nut-und-Feder-Verbindung (21) eine vertikale Bewegung zwischen den Leichtbau-Außenwandbalken erlaubt, wenn sich die Balken (13) absenken.

2. Verfahren nach Anspruch 1, dadurch gekennzeichnet, daß der horizontale Leichtbau-Außenwandbalken (12) der zusätzlichen Wand (11) außerhalb der eigentlichen Blockwand (10) in einem Abstand von dem Balken in den vertikalen Nuten (14) angeord-

net wird, die an den freien Enden der Balken (13) von benachbarten Wänden ausgebildet sind, und mittels mindestens zwei Verbindungsstücken (15) mit einem Balken (13) verriegelt wird, der an dem entsprechenden Punkt angeordnet ist, um eine feste und integrierte Einheit oder ein kleines Element (23) zu bilden.

3. Verfahren nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß an der Ecke außerhalb der eigentlichen Blockwand (10) die zusätzliche Wand (11) ausgebildet wird, so daß in den vertikalen Nuten (14), die an den Enden der Balken (13) von benachbarten Blockwänden angeordnet sind, ein senkrechter Leichtbau-Eckbalken (17) derart befestigt wird, daß der Leichtbau-Eckbalken einen Winkel von im wesentlichen 45° mit den Wandoberflächen bildet, und daß der Leichtbau-Eckbalken (17) bezüglich der Balken (13) frei gleiten kann, wenn sich die Balken (13) absenken.

4. Blockwandkonstruktion mit einer eigentlichen Blockwand 10, wo die Balken (13) horizontal übereinander angeordnet sind, so daß ein Balken auf dem Balken darunter ruht, und mit einer zusätzlichen Wand (11), die in einem Abstand von der eigentlichen Blockwand angeordnet ist, dadurch gekennzeichnet,

- daß die zusätzliche Wand (11) horizontale Leichtbau-Außenwandbalken (12) aufweist, die außerhalb der eigentlichen Blockwand (10) angeordnet sind und zwischen sich eine Nut-und-Federverbindung (21) aufweisen, die eine vertikale Bewegung zuläßt,

- daß zwischen dem Balken (13) und dem an dem entsprechenden Punkt angeordneten Leichtbau-Außenwandbalken (12) mindestens ein Verbindungsstück 15 vorliegt, so daß der Balken (13), der Leichtbau-Außenwandbalken (12) und das Verbindungsstück (15) eine feste und integrierte Einheit oder ein kleines Element (23) bilden,

- daß das Belastungslager des kleinen Elements (23) gegenüber dem anderen kleinen Element (23) unter ihm an dem Balken (13) des kleinen Elements (23) angeordnet ist,

- und daß die Nut-und-Feder-Verbindung (21) zwischen den zwei Leichtbau-Außenwandbalken (12) von zwei kleinen Elementen (23), die übereinander befestigt sind, ein vertikales Spiel aufweisen, so daß die Nut-und-Feder-Verbindung (21) zwischen den Leichtbau-Außenwandbalken (12) eine vertikale Bewegung zuläßt, wenn sich die Balken (13) absenken.

5. Blockwandkonstruktion nach Anspruch 4, dadurch gekennzeichnet,

- daß der horizontale Leichtbau-Außenwandbalken (12) der zusätzlichen Wand (11) außerhalb der eigentlichen Blockwand (10) in einem Abstand von dem Balken (13) in den vertikalen Nuten (14) angeordnet wird, die an den freien Enden der Balken (13) benachbarter Wände ausgebildet sind, und

- daß zwischen dem Balken (13) und dem an dem entsprechenden Punkt angeordneten Leichtbau-Außenwandbalken (12) mindestens zwei Verbindungsstücke (15) angeordnet sind, die den Balken (13) und den Leichtbau-Außenwandbalken (12) verbinden, um eine feste und integrierte Einheit oder ein kleines Element (23) zu bilden.

6. Blockwandkonstruktion nach Anspruch 4 oder 5, dadurch gekennzeichnet,

- daß an der Ecke der zusätzlichen Wand (11) an den Enden der Balken (13) benachbarter Blockwände in den vertikalen Nuten (14) ein vertikaler Leichtbau-Eckbalken (17) angeordnet ist,

- daß der Leichtbau-Eckbalken (17) mit den Wandoberflächen einen Winkel von im wesentlichen 45° bildet

- und daß der Leichtbau-Eckbalken (17) bezüglich der Balken (13) frei gleiten kann, wenn sich die Balken (13) absenken.

7. Blockwandkonstruktion nach Anspruch 4, 5 oder 6, dadurch gekennzeichnet,

- daß das feste kleine Element (23), das von dem Leichtbau-Außenwandbalken (12) den Verbindungsstücken (15) und dem Balken (13) umfaßt wird, derart mit den entsprechenden kleinen Elementen (23) der benachbarten Wände, die im wesentlichen in der gleichen Höhe angeordnet sind, verbunden ist, daß die kleinen Elemente (23) aller Wände in im wesentlichen der gleichen Höhe ein rahmenartiges Schichtelement (24) bilden,

- daß das Schichtelement (24) derart auf dem anderen Schichtelement (24) ruht, daß nur die Balken (13) des Schichtelements (24) darüber auf dem Balken (13) des Schichtelements darunter ruhen, und

- daß die Nut-und-Feder-Verbindung (21) zwi-

schen den zwei Leichtbau-Außenwandbalken (12) der zwei Schichtelemente (24), die übereinander befestigt sind, ein vertikales Spiel aufweisen, so daß die Nut-und-Feder-Verbindung (21) zwischen den Leichtbau-Außenwandbalken (12) eine vertikale Bewegung zuläßt, wenn sich die Schichtelemente (24) absenken.

Revendications

1. Un procédé de fabrication d'une structure en profilés en bois, procédé selon lequel, afin de fabriquer la structure en profilés en bois, on forme une paroi (10) en profilés en bois réel est formée, dans laquelle les profilés en bois réels de paroi intérieure (13) sont montés horizontalement les uns au-dessus des autres, de manière que le profilé en bois repose sur le profilé en bois se trouvant au-dessous de lui, et une paroi supplémentaire (11) est formée à distance de la paroi en profilé en bois réels, caractérisé :

   - en ce que la paroi supplémentaire (11) est formée à l'extérieur de la paroi en profilé en bois réels (10), constituée de profilés en bois de paroi extérieure (12) légers, horizontaux, qui présentent entre eux une jonction à languette et rainure (21) leur permettant de se déplacer verticalement
   - en ce que chacun des profilés en bois de paroi extérieure (12) légers est bloqué au moyen d'au moins une pièce de liaison (15), un profilé en bois réel (13) étant disposé au point correspondant, de manière que le profilé en bois de paroi extérieure (12) léger, le profilé en bois réel (13) et les pièces de liaison (15) forment une unité massive et intégrée ou un petit élément (23),
   - en ce que le petit élément (23) repose sur l'autre petit élément (23) se trouvant au-dessous de lui, de manière que seul le profilé en bois réel du prcmier petit élément repose sur le profilé en bois réel du deuxième petit élément se trouvant au-dessous de lui,
   - et en ce que les rainures des profilé en bois de paroi extérieure (12) légers des deux petits éléments (23) montés l'un au-dessus de l'autre présentent un jeu vertical, dc manière que la jonction à languette et rainure (21) permette un déplacement vertical entre les profilé en bois légers de paroi extérieure, lorsque les profilé en bois réels (13) sont mis en place et engagés les uns contre les autres.

2. Un procédé selon la revendication 1, caractérisé en ce que le profilé en bois de paroi extérieure (12) léger, horizontal, de la paroi supplémentaire (11) est placé à l'extérieur de la paroi en profilés en bois réels (10), à distance du profilé en bois réel, dans les rainures verticales (14) formées aux extrémités libres des profilés en bois réels (13) de parois adjacentes, et relié fermement au moyen d'au moins deux pièces de liaisons (15) à un profilé en bois réel (13) disposé au point correspondant, afin de former une unité massive et intégrée ou un petit élément (23).

3. Un procédé selon la revendication 1 ou 2, caractérisé en ce que, à l'angle se trouvant à l'extérieur de la paroi en profilés en bois réels (10), la paroi supplémentaire (11) est formée de manière que, dans les rainures verticales (14) placées aux extrémités des profilés en bois réels (13) des parois adjacentes en profilé en bois, un profilé en bois d'angle (17) léger, vertical. soit monté de façon que le profilé en bois d'angle léger forme un angle de sensiblement 45° avec les surfaces de parois, et que le profilé en bois d'angle (17) léger puisse coulisser librement par rapport aux profilés en bois réels (13) lorsque les profilé en bois réels (13) sont mis en place et engagés les uns contre les autres.

4. Une structure de paroi en profilé en bois, comprenant une paroi en profilé en bois réels (de paroi intérieure) (10), dans laquelle les profilés en bois réels (13) sont placés horizontalement les uns au-dessus des autres, de manière que le profilé en bois repose sur le profilé en bois se trouvant au-dessous de lui, et qu'une paroi supplémentaire (11) soit placée à distance de la paroi en profilé en bois réels, caractérisée

   - en ce que la paroi supplémentaire (11) comprend des profilé en bois de paroi extérieure (12) légers, horizontaux, qui sont placés à l'extérieur de la paroi en profilé en bois réel (10) et qui présentent entre eux une jonction à languette et rainure (21), permettant un déplacement vertical,
   - en ce qu'entre le profilé en bois réel (13) et le profilé en bois de paroi extérieure (12) léger disposé au point correspondant, se trouve au moins une pièce de liaison (15), de manière que le profilé en bois (13) réel, le profilé en bois de paroi extérieure (12) léger et la pièce de liaison (15) forment une unité massive et intégrée ou un petit élément (23),
   - en ce qu'un support de charge du petit élément (23), contre l'autre petit élément (23) se trouvant au-dessous de lui, est supporté au niveau du profilé en bois réel (13) du petit élément (23),
   - et en ce que la jonction à languette et rainure (21), prévue entre les deux profilé en bois de paroi extérieure (12) légers des deux petits éléments (23) montés l'un au-dessus de l'autre,

présente un jeu vertical, de manière que la jonction à languette et rainure (21) permette un déplacement vertical entre les profilés en bois de paroi extérieure (12) légers, lorsque les profilés en bois réels (13) sont mis en place et engagés les uns contre les autres.

5. Une structure de paroi en profilé en bois selon la revendication 4, caractérisée

- en ce que le profilé en bois de paroi extérieure léger, horizontal, de la paroi supplémentaire (11) est placé à l'extérieur de la paroi en profilé en bois réel (10), à distance du profilé en bois réel (13), dans les rainures verticales (14) formées aux extrémités libres des profilé en bois réels (13) de parois adjacentes,
- et en ce que, entre le profilé en bois réel (13) et le profilé en bois de paroi extérieure (12) léger, placé au point correspondant, se trouvent au moins deux pièces de liaison (15) reliant le profilé en bois réel (13) et le profilé en bois de paroi extérieure (12) léger, de manière à former une unité massive et intégrée ou un petit élément (23).

6. Une structure de paroi en profilé en bois selon la revendication 4 ou 5, caractérisée

- en ce que, à l'angle de la paroi supplémentaire (11), est placé un profilé en bois d'angle (17) léger, vertical, dans les rainures verticales (14) aux extrémités des profilé en bois réels (13) de parois adjacentes en profilé en bois,
- en ce que le profilé en bois d'angle (17) léger forme un angle sensiblement de 45° avec les surfaces de parois,
- et en ce que le profilé en bois d'angle (17) léger peut coulisser librement par rapport aux profilé en bois réels (13), lorsque les profilé en bois réels (13) sont mis en place et engagés les uns contre les autres.

7. Une structure de paroi en profilé en bois selon la revendication 4, 5 ou 6, caractérisée

- en ce que le petit élément massif (23), constitué par le profilé en bois de paroi extérieure (12) léger, les pièces de liaison (15) et le profilé en bois réel (13), est relié aux petits éléments (23) correspondants des parois adjacente disposées sensiblement à la même hauteur, de manière que les petits éléments (23).de toutes les parois se trouvant sensiblement à la même hauteur forment un élément de couche (24) en forme de cadre,
- en ce que l'élément de couche (24) repose sur l'autre élément de couche (24), de manière que seuls les profilés en bois en bois réels (13) de l'élément de couche (24) se trouvant au-dessus reposent sur les profilé en bois réels (13) de l'élément de couche (24) se trouvant en dessous,
- et en ce que la jonction à languette et rainure (21) entre les deux profilé cn bois de paroi extérieure (12) légers des deux éléments de couche (24) montés l'un au-dessus de l'autre présente un jeu vertical, de manière que la jonction à languette et rainure (21) permette un déplacement vertical entre les profilé en bois de paroi extérieure (12) légers, lorsque les profilé en bois réels (13) des éléments de couche (24) sont mis en place et engagés l'un contre l'autre.

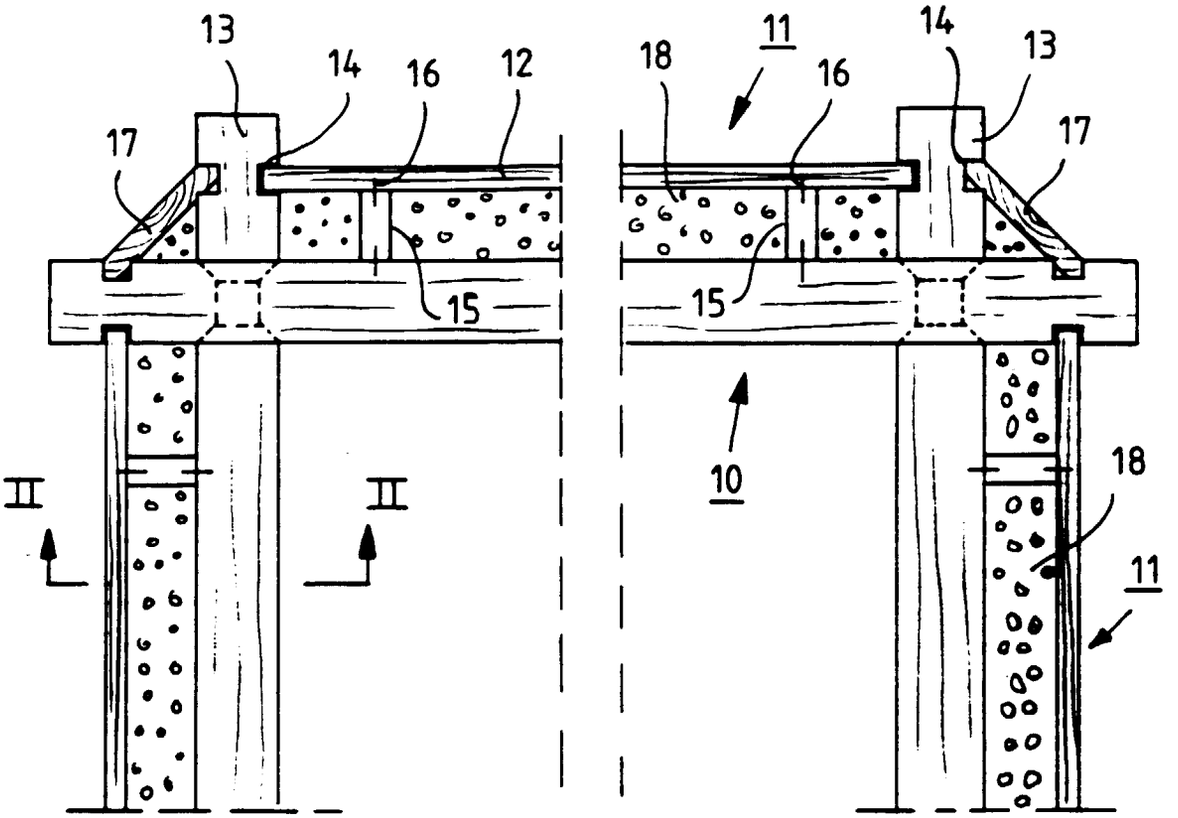


FIG. 1

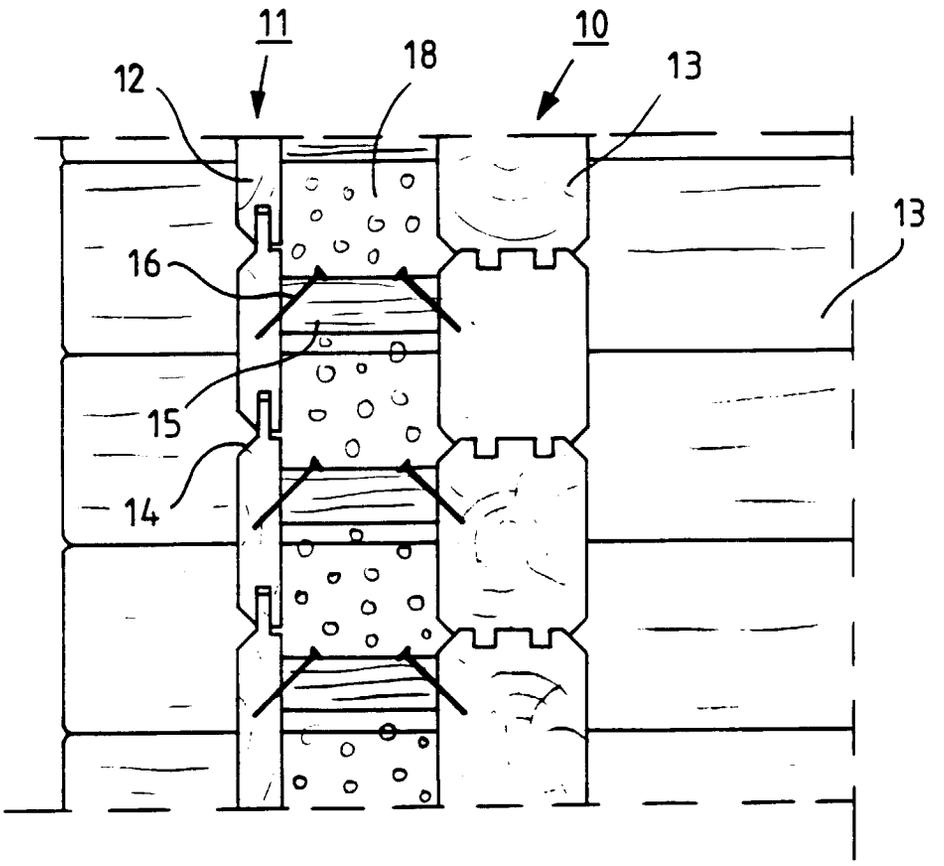


FIG. 2

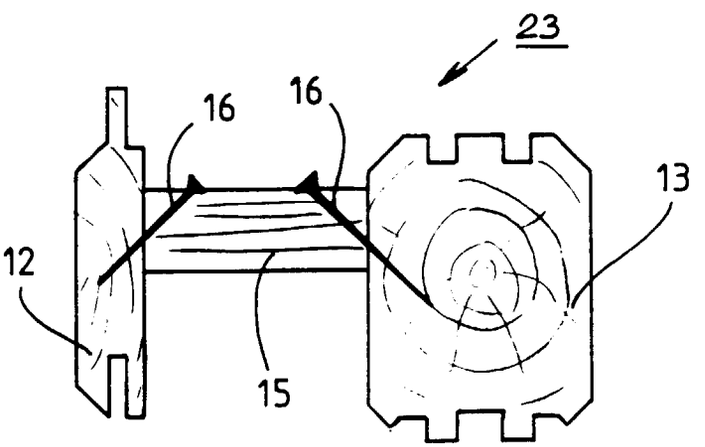


FIG. 3

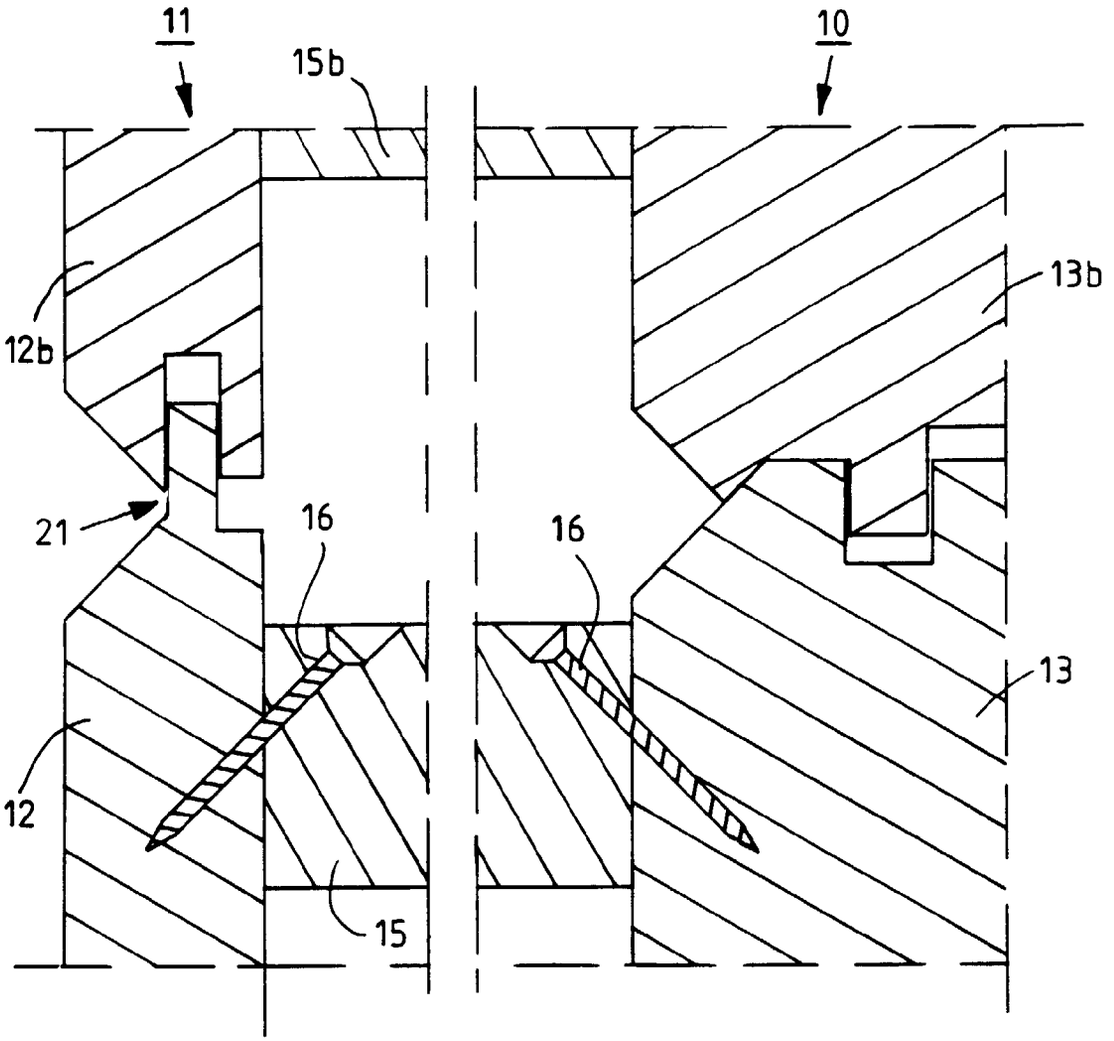


FIG. 4

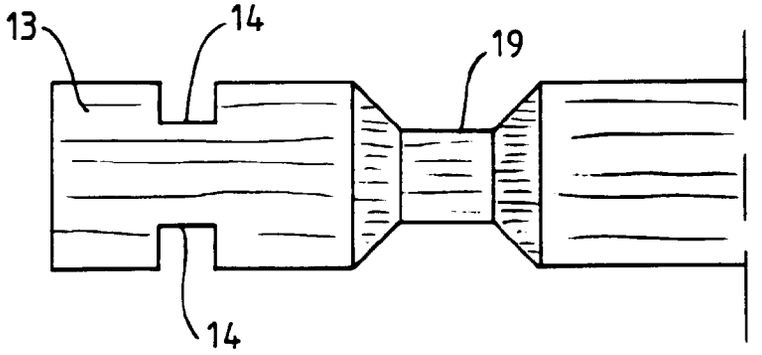


FIG. 5

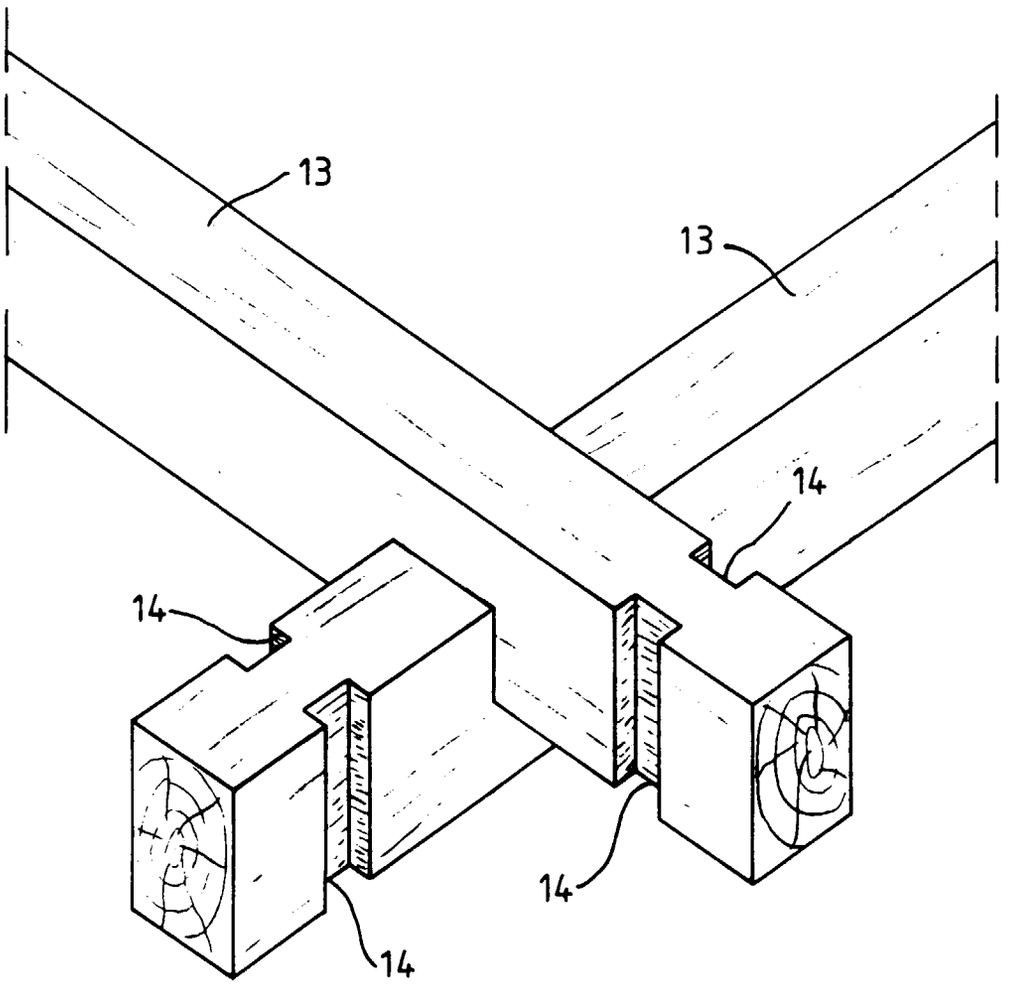


FIG. 6

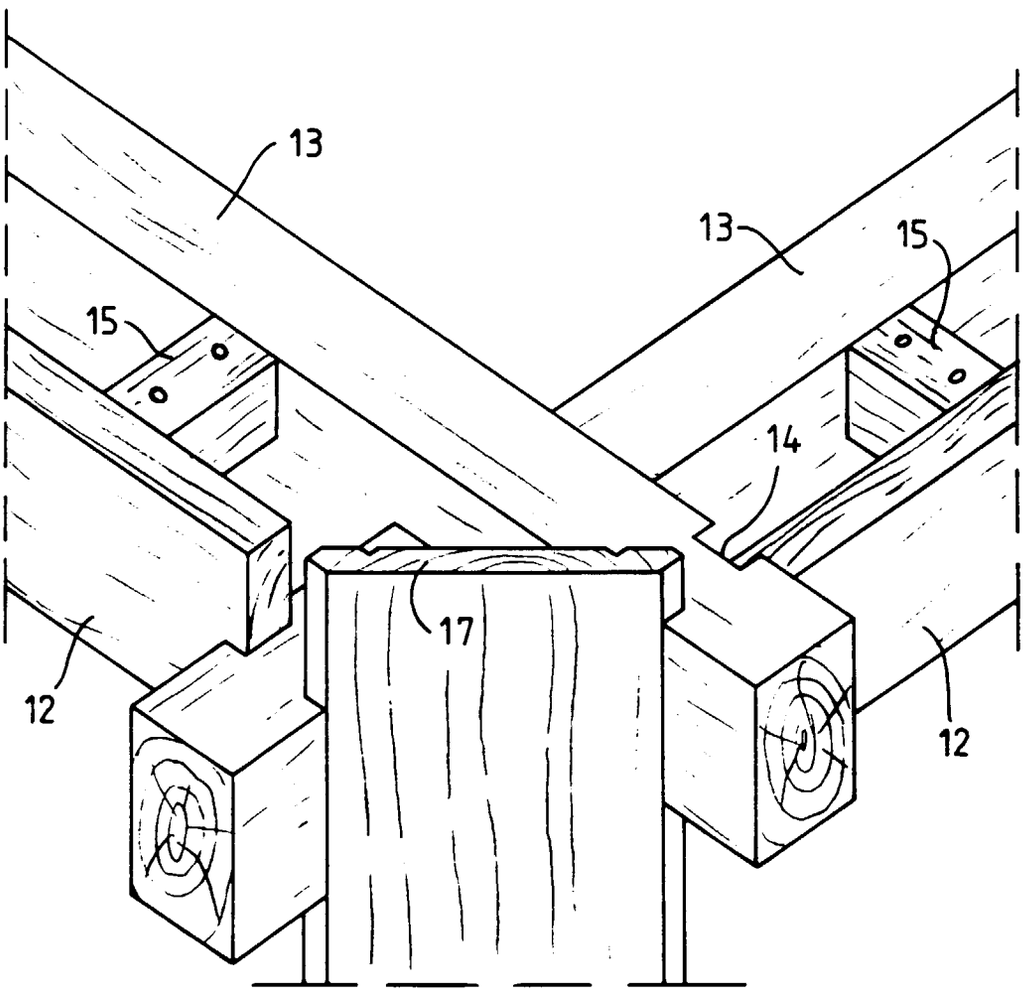


FIG. 7

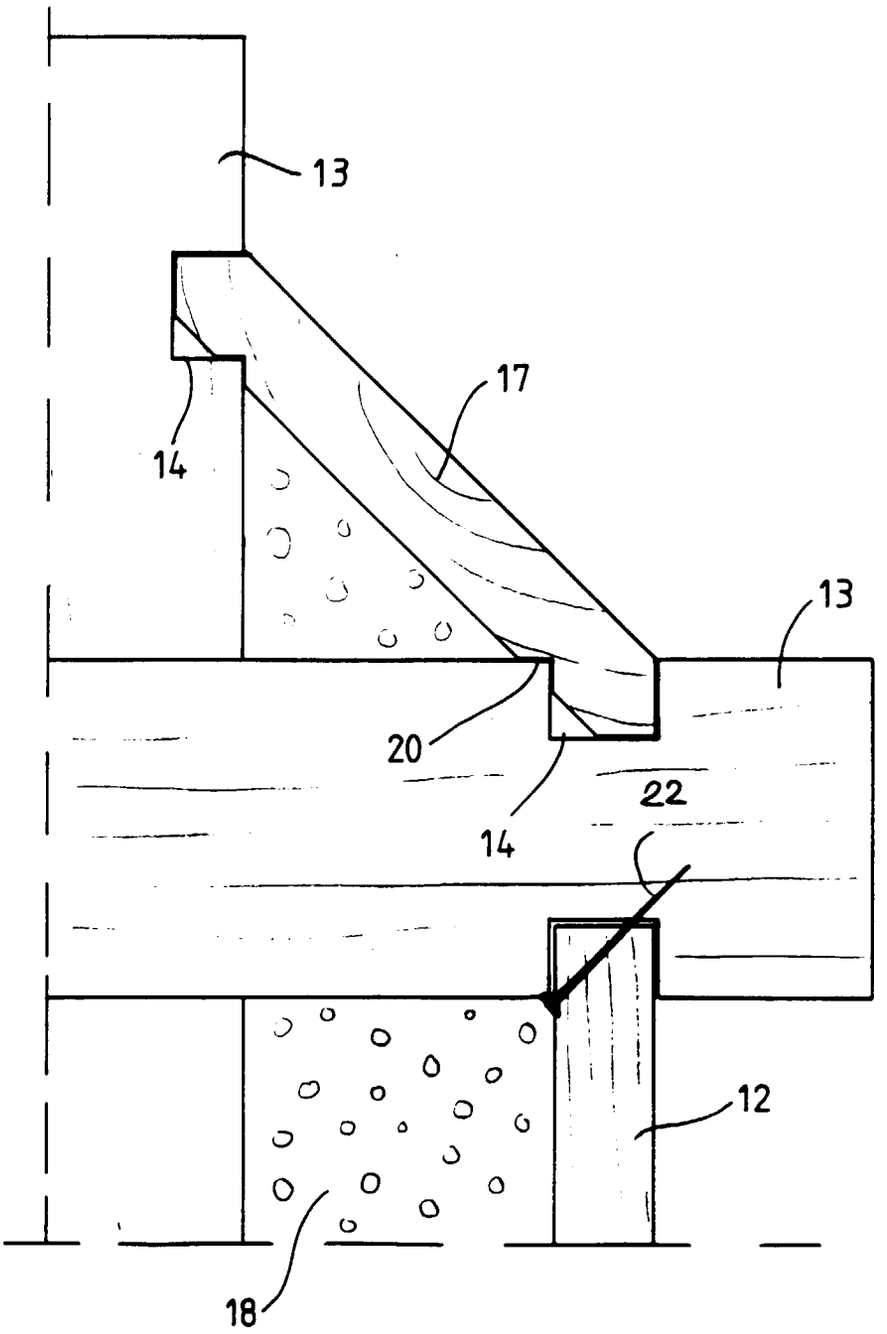


FIG. 8

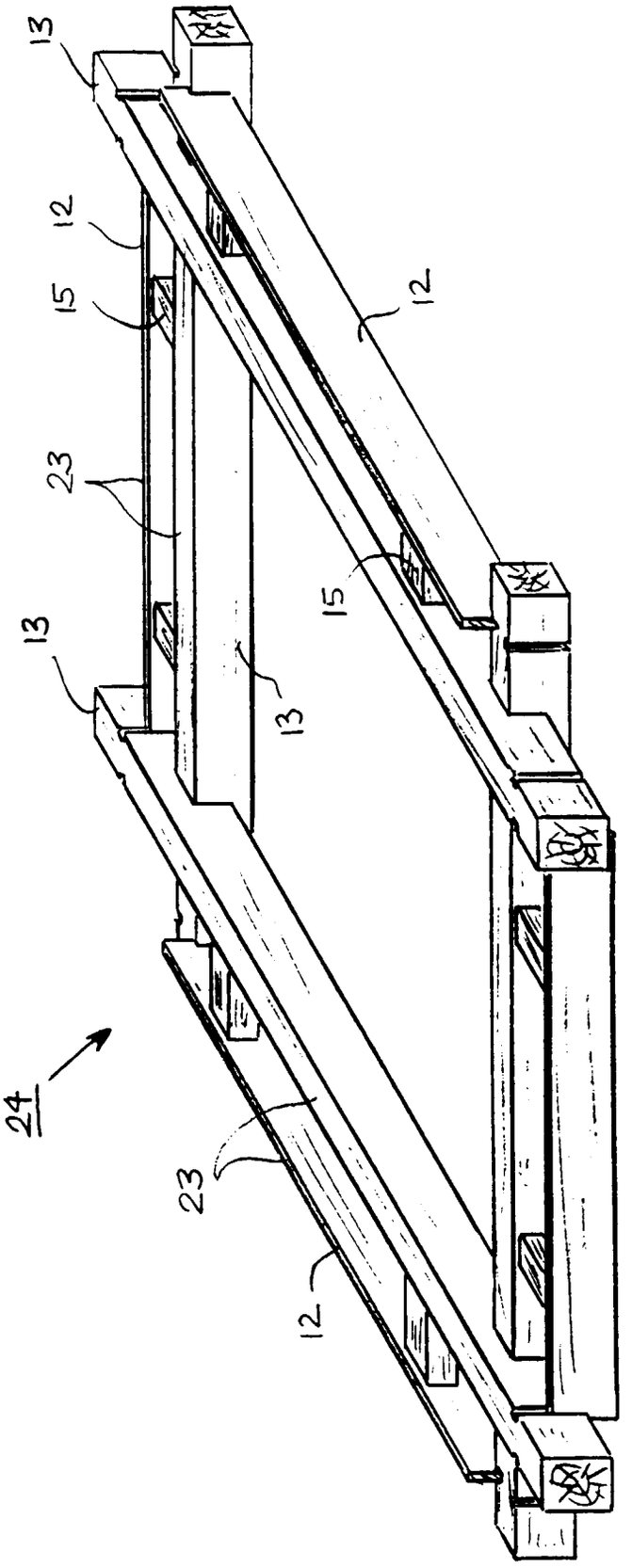


FIG. 9