March 13, 1945. J. W. VAN PATTEN 2,371,561

CEILING JACK

Filed June 28, 1944 2 Sheets-Sheet 1

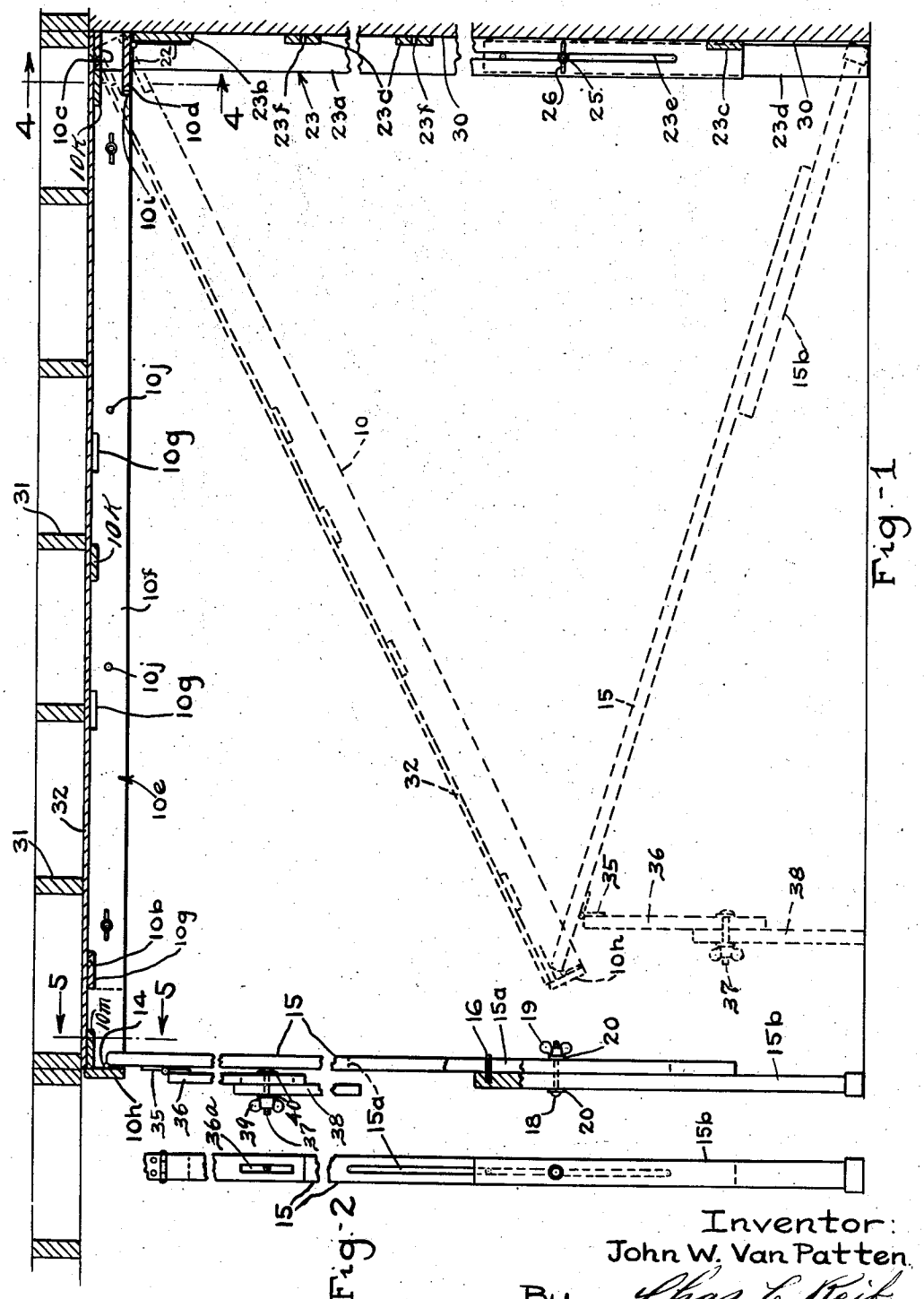


Fig. 1

Fig. 2

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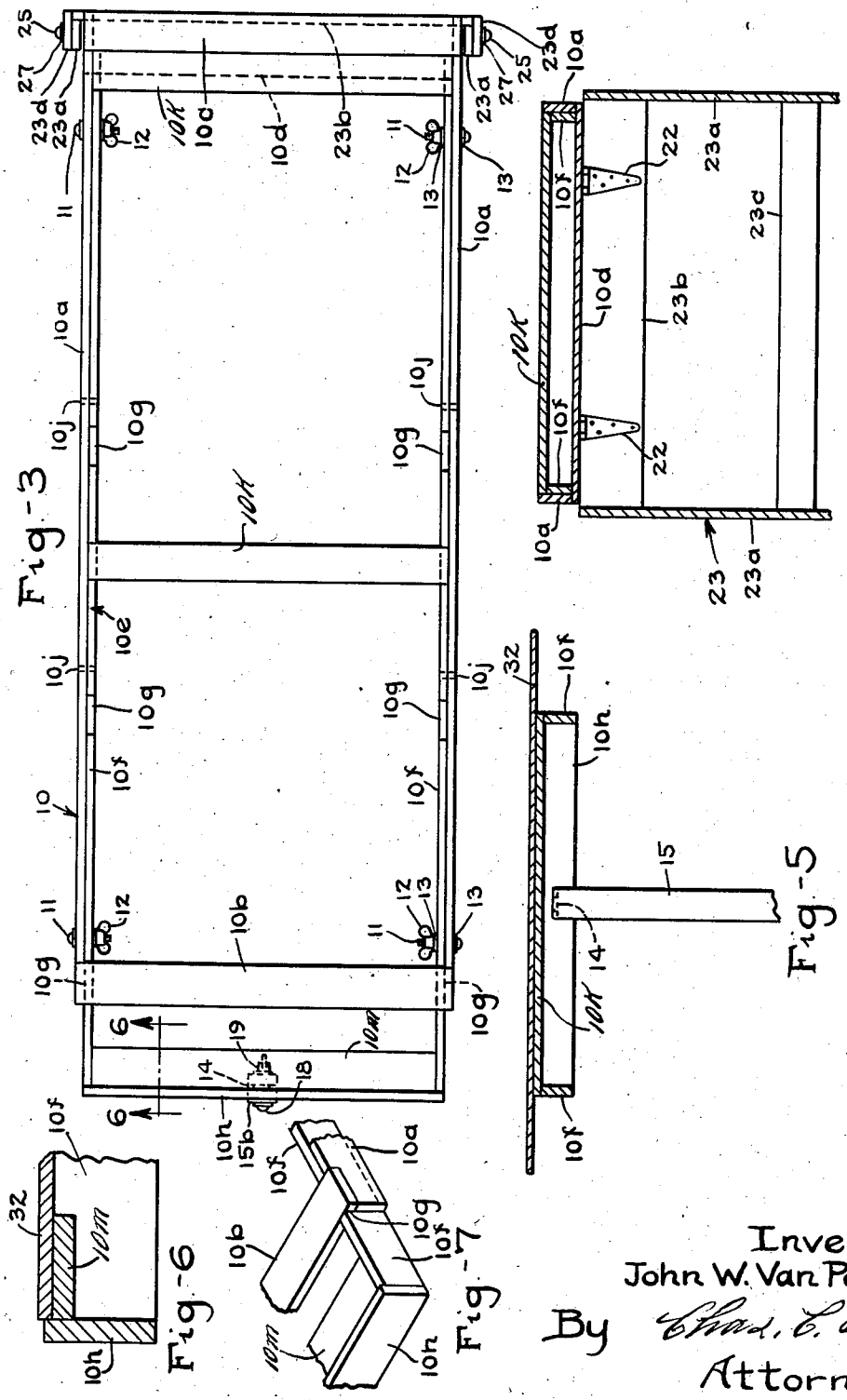


Fig-3

Fig-4

Fig-5

Fig-6

Fig-7

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2,371,561

CEILING JACK

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6 Claims. (Cl. 304—29)

This invention relates to a ceiling jack or to a device for positioning sheet material adapted to be attached to a ceiling in position for easy attachment. Sheet material is now commonly applied to the ceilings of various rooms. This sheet material comes in rather large sheets and it is rather difficult and awkward to hold the material against the ceiling or means to which it is to be fastened while the nails or fastening means are applied thereto.

It is an object of this invention to provide a simple and easily operated device by means of which the sheets of material may be very conveniently and quickly handled and held against the ceiling for attachment.

It is a further object of the invention to provide a device comprising a member arranged to receive and support a sheet of ceiling material, a support secured adjacent one end of said member and adapted to be held in vertical position with said member closely adjacent the ceiling, a second support hinged adjacent the other end of said member and adapted to be swung to position with said other end of said frame at a low level or near the floor so that the sheet can be easily placed thereon, said second support being movable to substantially vertical position to swing said member and sheet into substantially horizontal position and press said sheet against the ceiling.

It is more specifically an object of the invention to provide a device for holding a sheet of ceiling material against the ceiling comprising a member preferably of rectangular form in plan adapted to receive said sheet of material and having a ledge at one end against which the edge of said material may rest, a support hinged adjacent the other end of said member and constructed and arranged to be held in vertical position preferably against one wall of the room, said support having means for varying its length so that said member may be positioned adjacent the ceiling, a second support hinged adjacent the first mentioned end of said member and movable to hold said end at a low level so that said sheet may be conveniently placed on said member, said second support being movable to substantially vertical position to swing said member and sheet into substantially horizontal position and hold said sheet against the ceiling.

It is further an object of the invention to provide such a device as set forth in the preceding paragraph, said member being arranged to be extensible to accommodate sheets of different sizes and said second support also having means for varying its length to suit ceilings of different heights.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to similar parts throughout the several views and in which:

Fig. 1 is a view partly in side elevation and partly in central vertical section of said device, a portion of the ceiling being shown in vertical section;

Fig. 2 is a partial view in front elevation of one support used with said device;

Fig. 3 is a top plan view of said device;

Fig. 4 is a partial vertical section taken on line 4—4 of Fig. 1 as indicated by the arrows;

Fig. 5 is a partial vertical section taken on line 5—5 of Fig. 1 as indicated by the arrows;

Fig. 6 is a partial vertical section taken on line 6—6 of Fig. 3 as indicated by the arrow; and

Fig. 7 is a perspective view of one end or corner of said device.

Referring to the drawings a device is shown comprising a member 10. While this member might be variously formed, in the embodiment of the invention illustrated it is shown as substantially rectangular in plan. Said member comprises a rectangular frame having side members 10a which are conveniently made of plates or boards disposed in vertical planes and said members are connected at one end by a cross member 10b which is rabbeted into the tops of members 10a so that its top surface is flush with the top edges of members 10a. Another cross member 10c is provided at the other end of said frame similar to members 10a and has its top surface flush with the top edges of said members. A cross member 10d extends across the bottoms of members 10a at the end of said frame at which member 10c is disposed and said member 10d is rabbeted into the lower sides of members 10a so that its bottom surface is flush with the bottom edges of members 10a. A second frame 10e also of rectangular form in plan is provided and comprises spaced longitudinal side members 10f spaced to fit snugly between side members 10a. Side members 10f are also made of boards or plates disposed in vertical planes. The top edges of members 10f are provided with a plurality of rectangular slots 10g and these slots are of a width and depth to snugly receive the cross member 10b so that its top surface will be flush with the top edges of members 10f. Transverse members 10h connect members 10f and are set

into the tops thereof. Another member 10*m* extends between members 10*f* at one end thereof and has its top flush with the top edges of members 10*f*. The members 10*f* at their ends opposite member 10*h* have rectangular recesses 10*k* formed in their lower corners. These recesses receive the rear end of member 10*d* on the outer frame when the parts are in the position shown in Figs. 1 and 3. The frame 10*e* has an end member 10*h* secured to the end edges of member 10*f* adjacent member 10*m* disposed in a vertical plane and having its top edge disposed a short distance above the top edges of members 10*f* as shown in Figs. 1, 6 and 7. Members 10*a* and 10*f* are provided with a plurality of apertures 10*j* which are shown as disposed a short distance to the right of slots 10*g*, and these holes are adapted to receive bolts 11 preferably provided with the wing nuts 12. Washers 13 may be disposed beneath the heads of bolts 11 and beneath the nuts 12. The holes 10*j* come into alignment no matter in which slot 10*g* the member 10*b* is disposed. Secured to the member 10*h* by a hinge 14 disposed on its inner side is a support 15. Support 15 is disposed substantially in the center of member 10*h* and is provided with a central longitudinal slot 15*a*. Member 15 comprises an extension piece 15*b* having a dowel pin 16 secured therein and extending into slot 15*a*. A headed bolt 18 extends through member 15*b* and through slot 15*a*, the same preferably being provided with a wing nut 19. Washers 20 are preferably provided beneath the head of bolt 18 and beneath nut 19. It will be seen that by loosening nut 19 member 15*b* can be moved relatively to member 15 and held in the desired position by tightening nut 19. Secured adjacent the other end of member 10 by a pair of hinges 22 is an end support or frame 23. Frame 23 comprises spaced plates or boards 23*a* disposed in vertical planes and connected adjacent their upper ends by a transverse plate or bar 23*b* set into members 23*a* so that its outer surface is flush with the outer edges of members 23*a*. The hinges 22 are secured to the bottom of member 10*d* and to the inner side of member 23*b*. Members 23*a* are also connected by one or more additional transverse bars 23*c* also set into the members 23*a* so that their outer surfaces are flush with the outer edges of members 23*a*. Frame 23 has members 23*d* extending along and against the outer sides of members 23*a*. Members 23*a* are provided with substantially central longitudinally extending slots 23*e*. Headed bolts 25 extend through members 23*d* and through the slots 23*e* and are preferably provided with wing nuts 26. Washers 27 are preferably disposed beneath the heads of bolts 25 and the wing nuts 26. It will thus be seen that members 23*d* may be moved relatively to members 23*a* and held in the desired position by tightening nuts 26. Members 23*c* are preferably provided with one or more holes 23*f*.

Secured to the member 15 at the outer side thereof by hinge 35 is a supporting member 36. Member 36 is provided with an elongated slot 36*a* adjacent its end through which passes the headed bolt 37. An extension member 38 extends alongside of member 36 and is apertured to receive bolt 37. Bolt 37 is equipped with a wing nut 39 and said bolt can be disposed in any position in slot 36*a* and held therein by tightening of nut 39. Preferably washers 40 are disposed beneath the head of bolt 37 and beneath the nut 39. The members 38 are adapted to form an additional support for the member 10 when the latter is in sheet-receiving position as shown in Fig. 1.

In operation the device will be disposed as shown in Fig. 1. Frame 23 will be placed against one end wall 30 of the room and said frame may be held in position by nails driven through the holes 23*f*. Members 23*d* will be adjusted so that the upper surface of the side members 10*a* will be a short distance from the ceiling or the lower edges of the joists or other timbers 31 as shown in Fig. 1. The support 15 will be adjusted in length so that when it is in vertical position as shown in Fig. 1, member 10 will be substantially in horizontal position. The member 15 is swung so that the end of the frame 10 having member 10*h* will be at a low level or near the floor as shown in the dotted line position in Fig. 1. The sheet of material 32 can now be easily and conveniently laid on the top of frame 10 and its lower edge will rest against the ledge formed by the projecting upper side of member 10*h*. The end of member 15 may rest against the wall as shown in Fig. 1, or the end of member 15*b* can be provided with a rubber tip 21 or other suitable means to hold it in position. When the sheet 32 has been placed on frame 10, the operator then takes hold of support 15 and swings frame 10 upwardly and brings support 15 into vertical position as shown in full lines in Fig. 1. The sheet 32 is now brought into horizontal position and pressed against the ceiling or ceiling timbers. The sheet will be of a width to extend beyond frame 10 as shown in Fig. 5. The workmen can now drive fastening nails through the projecting edge portions of sheet 32 and said sheet is thus easily and quickly fastened. The length of the frame 10 can be varied by moving members 10*f* relatively to members 10*a* and disposing the cross bar 10*b* in different slots 10*g*. The lengths of members 15 and 23 can be easily varied by moving members 15*b* and 23*d* respectively to suit various heights of ceilings.

From the above description it will be seen that I have provided a simple, novel and very efficient device for quickly and easily applying the sheets of material to a ceiling. The device, if desired, can be easily made of standard lumber. When the members 36 and 38 are used they can be brought to vertical position as shown in Fig. 1, and form a very suitable support for the lower end of the sheet-receiving frame. These members thus form an auxiliary leg and act to relieve the strain on the nail fastenings extending through the holes 23*f*. They also eliminate the necessity of using a saw horse or other temporary support. Said members can be adjusted to a height to suit the particular workman. It will be convenient to use these members at times when the supports 15 and 15*b* are at a small angle to the floor.

The device is easily and conveniently operated and the sheets of material can be very easily and quickly placed thereon when it is in sheet-receiving position. The operation is thus quite rapid and the placing of the sheets can be greatly speeded up over what has before been possible. The device thus accomplishes quite a saving in labor. It will also be seen that the device can be folded into very compact shape. Members 15 and 15*b* can be folded close to the member 10 and within the side members 10*a*. Members 36 and 38 will also fold closely alongside of member 15. When so folded or in collapsed condition the device is very compact and can be easily transported. The same has been amply demonstrated

in actual practice and found to be very successful and efficient.

It will of course, be understood that various changes may be made in the form, details, arrangement and proportions of the parts, without departing from the scope of applicant's invention, which generally stated, consists in a device capable of carrying out the objects above set forth, in the parts and combinations of parts disclosed and defined in the appended claims.

What is claimed is:

1. A device of the class described having in combination, a member for supporting a sheet of ceiling material, a vertical support adjacent one end of said member, said support being hinged to said member adjacent said end, said support being adapted to be held in vertical position, a support hinged adjacent the other end of said member and swingable to an inclined position to permit one end of said member to be positioned near the floor to receive said sheet and to then be moved to vertical position to move said member to horizontal position and press said sheet against the ceiling.

2. A device of the class described having in combination, a member adapted to receive and support a sheet of ceiling material, a support hinged adjacent one end of said member, means for varying the length of said support so that said support may be disposed substantially vertically and said end of said member may be positioned adjacent the ceiling, a support for the other end of said member movable so that said other end may be positioned near the floor to receive said sheet and movable to swing and support said other end adjacent the ceiling so that said member is in substantially horizontal position and will press said sheet against the ceiling.

3. A device of the class described having in combination, a member adapted to receive a sheet of ceiling material, a support hinged adjacent one end of said member and arranged to be held in vertical position with said end adjacent the ceiling, a second support hinged adjacent the other end of said member, means for varying the length of said second support, said member having a ledge at said other end against which the edge of said sheet may rest, said second support being movable so that said other end of said member may be positioned near the floor to receive said sheet and said second support being movable into substantially vertical position to bring said other end of said member adjacent the ceiling so that said sheet may be pressed against the ceiling.

4. A device of the class described having in combination, a member of general rectangular form in plan adapted to receive a sheet of ceiling material, a ledge at one end of said member against which the edge of said sheet may rest, a support hinged adjacent the other end of said member and constructed and arranged to be held against one wall of a room in vertical position, means for varying the length of said support so that said other end of said member may be positioned adjacent the ceiling, a second support hinged to the first mentioned end of said member and swingable so that said first mentioned end may be positioned at a low level to receive said sheet, said second support being swingable into vertical position to move said member into substantially horizontal position to press said sheet against the ceiling.

5. A device of the class described having in combination, a member for supporting a sheet of ceiling material, means for varying the length of said member to accommodate sheets of different sizes, a support adjacent one end of said member constructed and arranged to be held in vertical position to position said end adjacent the ceiling, a second support hinged to the other end of said member and movable to position to support said other end of said member at a low level to receive said sheet of material, said second support being movable to substantially vertical position to swing said member into substantially horizontal position and press said sheet of material against the ceiling.

6. A device of the class described having in combination, a member adapted to support a sheet of ceiling material and comprising a frame having parallel side members connected by a cross member, said member also comprising a second frame having parallel side members with spaced slots in any one of which said cross member may be disposed, said member thus being extensible, means for holding said frames in fixed relation, an extensible support hinged adjacent one end of said member and an extensible support hinged adjacent the other end of said member, said member having a ledge at one end against which an edge of said sheet material may be disposed.

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