April 10, 1956 G. E. FISHER 2,741,514

CEILING BOARD JACK

Filed Jan. 16, 1953 2 Sheets-Sheet 1

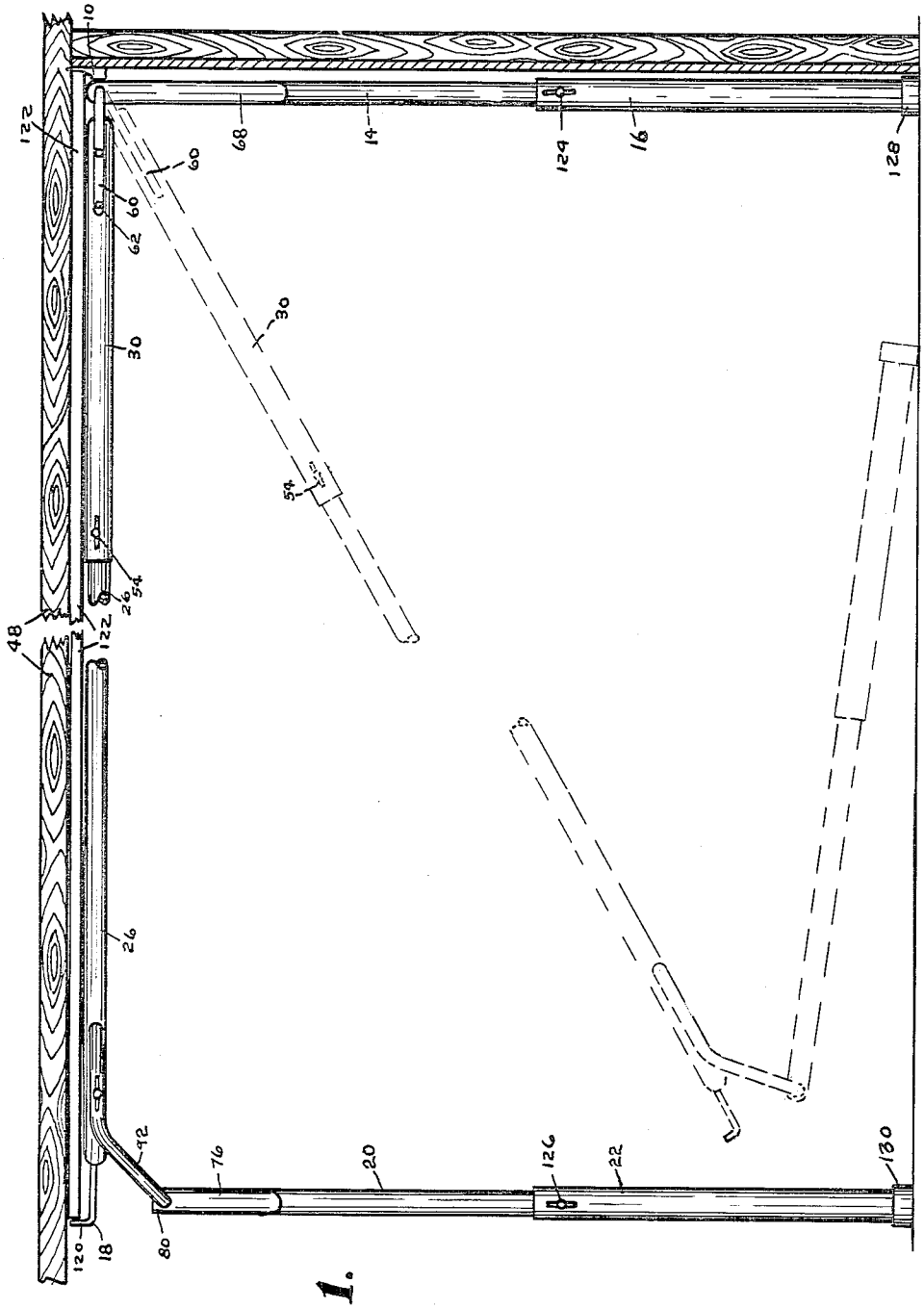


Fig. 1.

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Fig. 4.

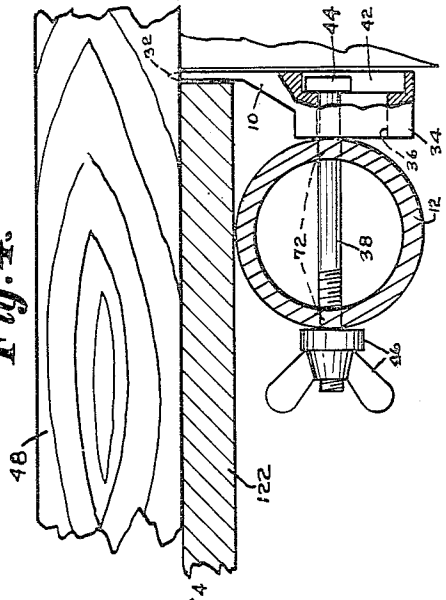


Fig. 6.

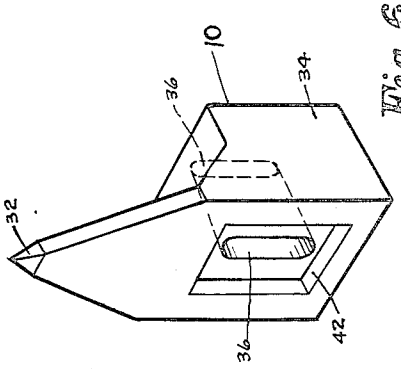


Fig. 3.

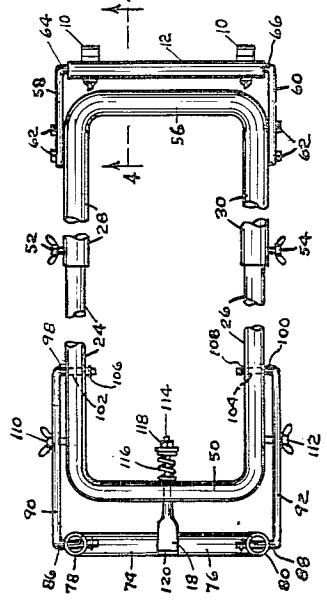


Fig. 5.

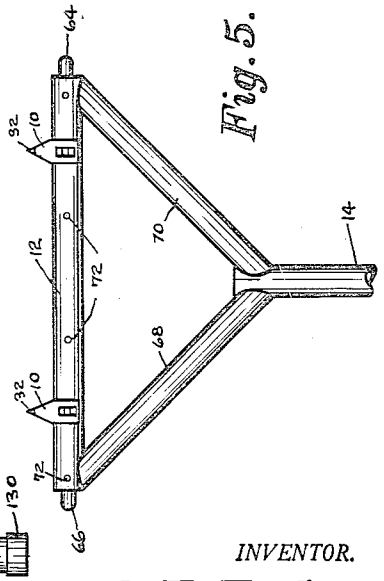
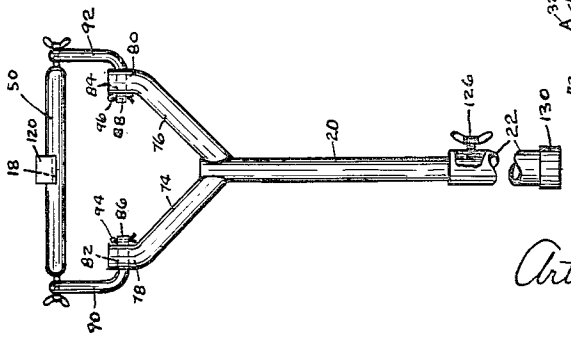


Fig. 2.



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CEILING BOARD JACK

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Application January 16, 1953, Serial No. 331,684

3 Claims. (Cl. 304—29)

This invention relates to devices and apparatus for holding ceiling board in position against the lower surfaces of joists to facilitate nailing the ceiling board to the joists, and in particular a rectangular-shaped frame supported by telescoping posts positioned at the ends and having prongs at one end adapted to be impressed into the joists for anchoring one end of the frame while the opposite end is extended downwardly to receive a ceiling board and also as the said opposite end is elevated to clamp the ceiling board in position for nailing against the joists.

The purpose of this invention is to provide means for elevating ceiling board and which is also adapted to hold the board in position for nailing which makes it possible for a single operator to elevate the panels of ceiling or wall board and, without assistance, secure the panels in position for covering the complete ceiling of a room or the like.

Various attempts have been made to provide scaffolds, jacks, and other types of apparatus for elevating ceiling board and holding the board in position for fastening the panels thereof to joists above, however, it is very difficult, with such devices, for one operator to elevate the ceiling board, retain the board in position against the under surfaces of the joists, and nail the board in place without assistance.

With this thought in mind this invention contemplates apparatus for elevating the panels of ceiling board including a rectangular-shaped frame having end members and telescoping side members with telescoping supporting posts positioned at the ends, and with prongs for anchoring one end of the frame as a panel of ceiling board is placed on the frame and positioned against a stop at the opposite end.

The object of this invention is, therefore, to provide a ceiling board carrying frame and means for elevating and holding the frame whereby a single operator may position panels of ceiling board and nail the panels to joists and the like without assistance.

Another object of the invention is to provide a ceiling board elevating jack in which one end of a frame thereof is anchored in position before a panel of the ceiling board is placed thereon.

Another important object of the invention is to provide a jack for elevating ceiling board and for clamping panels of the board in position for nailing in which the jack is of comparatively light weight so that a frame of the jack with a panel of ceiling board thereon may readily be actuated by a single operator to position the panel for nailing.

A further object of the invention is to provide a ceiling board elevating and holding jack in which a frame thereof is readily adjustable to ceiling board panels of different sizes.

A still further object of the invention is to provide a ceiling board jack in which the parts are collapsible so that the entirely assembly is adapted to be stored in a relatively small area, when not in use, and whereby transportation thereof is facilitated.

And a still further object is to provide an improved jack, for elevating and holding panels of ceiling board, that may readily be carried from one job to another and actuated by a single operator, in which the jack is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a rectangular-shaped frame having telescoping posts with yokes at the upper ends connected to the ends thereof, and having anchoring prongs at one end adapted to anchor the frame to ceiling joists and the like, and a stop at the opposite end for retaining a panel of ceiling board in position thereon.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings, wherein:

Figure 1 is a side elevational view of the improved ceiling board jack, part of the intermediate portion of the frame thereof being broken away, showing the jack in the position of clamping a panel of ceiling board against joists in full lines, and also showing, in broken lines, one end of the frame and the supporting leg thereof in a lowered position to facilitate placing a panel of ceiling board thereon, the opposite or upper end of the frame being anchored by prongs to the joists, and a side wall or partition of a building in which the jack is located being shown in section at one end of the jack.

Figure 2 is an end elevational view looking toward the end of the jack that is adapted to be lowered for placing ceiling board on the frame of the jack.

Figure 3 is a plan view of the jack with parts of the intermediate portion thereof being broken away.

Figure 4 is a detail, on an enlarged scale, taken on line 4—4 of Figure 3, illustrating the method of adjustably mounting the prongs at one end of the jack whereby one end of the frame of the jack is anchored to the ceiling joists to facilitate positioning the panels of ceiling board in relation to panels formerly secured to the joists.

Figure 5 is an end elevational view showing the yoke at the upper end of the post of the end of the jack opposite to that shown in Figure 2.

Figure 6 is a detail showing the construction of one of the anchoring prongs, the prong being shown on an enlarged scale.

Referring now to the drawings wherein like reference characters denote corresponding parts the improved ceiling board jack of this invention includes a rectangular-shaped frame having telescoping posts providing supporting legs at the ends with anchoring prongs 10 carried by a cross bar 12 at the upper end of a telescoping section 14 of a tubular post 16 at one end of the jack, a ceiling board panel holding clip or stop 18 positioned above a telescoping section 20 of a post 22 at the opposite end of the jack, with the frame including two U-shaped tubular members with side arms 24 and 26 of one member sliding in tubular side arms 28 and 30 of the other member, and with the members of the frame pivotally connected to the upper ends of the telescoping sections of the posts.

Each of the prongs 10 is provided with a point 32 that is adapted to be forced into a joist or panel of wood or other suitable material, and as shown in Figure 6, the prongs extend upwardly from a base 34. The base 34 is provided with a vertically disposed elongated slot 36 through which a bolt 38 extends, and the face 40 of the base is recessed to provide an open area 42 in which a head 44 of the bolt 38 is positioned. The bolts 38 of the prongs extend through the cross bar and wing or thumb nuts 46, threaded on the ends of the bolts adjustably clamp the prongs in position on the cross bar. By this means the positions of the prongs are set to com-

pensate for the thickness of the ceiling or wall board. The points 32 of the prongs extend beyond the ceiling board and into the joists which are indicated by the numeral 48. It will be understood that as many prongs may be used as may be desired.

The arms 24 and 26 of one member of the frame are connected with an end bar 50 and these arms are clamped in the arms 28 and 30 of the other member of the frame with thumb screws 52 and 54. The arms 28 and 30 are connected with an end bar 56, and these arms are pivotally connected to the cross bar 12 of the telescoping section 14 with side bars 58 and 60, which are secured to the arms 28 and 30 with bolts 62 and which are provided with pins 64 and 66 that extend into the ends of the cross bar 12, as shown in Figures 3 and 5. The ends of the cross bar 12 are connected to the section 14 of the post 16 with Y-shaped elements having diverging arms 68 and 70, and the cross bar is provided with spaced apertures 72 for receiving the bolts 38. The apertures 72 are spaced to correspond with conventional spacing of joists or studding.

The upper end of the telescoping section 20 of the post 22 is provided with a Y-shaped element or yoke having diverging arms 74 and 76 and the extended ends of the arms are provided with vertically disposed sections 78 and 80 through which openings 82 and 84 extend, as shown in Figure 2. The openings 82 and 84 are aligned and transversely disposed ends 86 and 88 of brackets 90 and 92 are pivotally mounted therein. The sections of the ends 86 and 88 that extend through the sections 78 and 80 are provided with cotter pins 94 and 96 which retain the brackets in position, and the opposite ends of the brackets are provided with pins 98 and 100 which are secured in openings 102 and 104 of the arms 24 and 26 with cotter pins 106 and 108. By this means the brackets are pivotally connected to the side arms of the frame, however, should it be desired to prevent pivotal movement of the brackets on the frame thumb screws 110 and 112 may be provided, the thumb screws extending through the brackets and being threaded into the arms 24 and 26, respectively, of the frame.

The ceiling board retaining clip 18, which is L-shaped in cross section, is provided with a threaded shank 114 that extends through the end bar 50 of the frame, and a spring 116 extended around the shank and positioned between the bar 50 and a nut 118 threaded on the shank, urges the clip inwardly toward the frame whereby an upwardly extended end 120 of the clip urges a panel of ceiling board, as indicated by the numeral 122, against the prongs 10 at the opposite end of the frame.

The post 16 is provided with a thumb screw 124 for clamping the telescoping section 14 in adjusted positions therein, and the post 22 is provided with a similar screw 126 for clamping the telescoping section 20 in such positions that when the post is adjusted to a vertical position a panel of ceiling board on the frame will be clamped against joists above. The lower end of the post 16 is provided with a cap 128 of rubber, or other friction gripping material, and a similar cap 130 is provided on the lower end of the post 22.

With the parts assembled in this manner the post 16 is set so that the prongs 10 extend into the material of the joists, which are indicated by the numeral 48, whereby the prongs anchor one end of the frame, and with the prongs positioned against the face of a wall, as shown in Figure 1, or against the end of another panel, the meeting end of a panel positioned on the frame will abut the face of the wall, or end of the mounted panel. By this means the end of the frame opposite to the end anchored in position by the prongs may be lowered to the position shown in dotted lines in Figure 1 so that a panel of ceiling board may be conveniently placed on the frame and, with a panel on the frame, the frame may be elevated to the position shown in full lines with the post 22 clamping the panel against the under surfaces of joists above. With the parts clamped and anchored in this manner the operator is free to nail, or otherwise secure the panel to the joists without danger of the jack accidentally moving or falling.

This improved ceiling board jack not only makes it possible for a single operator to efficiently mount ceiling board panels, but also makes it possible for a single operator to cover the ceiling of a room or the like in a comparatively short period of time.

From the foregoing description it is thought to be obvious that a ceiling board jack constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof, and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice, except as claimed.

What is claimed is:

1. In a ceiling board jack, the combination which comprises a rectangular-shaped frame including opposed U-shaped tubular members having end bars connecting telescoping side arms, clamping means for securing the side arms in adjusted positions, telescoping posts with Y-shaped elements having diverging arms on the upper ends positioned to extend downwardly from the ends of the frame, a cross bar integral with and carried by the diverging arms of the Y-shaped element of the post at one end of the frame, spaced prongs mounted on said cross bar and extended upwardly therefrom, side bars extended from the side arms of the U-shaped tubular member adjacent said cross bar and pivotally connected to the cross bar, brackets pivotally connected at one of the ends thereof to the ends of the diverging arms of the Y-shaped element of the post at the end of the frame opposite to the end at which the post with the cross bar on the upper end is positioned, the opposite ends of said brackets being connected to the side arms of the U-shaped tubular member at the end of the frame opposite to the end to which the cross bar is connected at points spaced inwardly from the end bar of the member, and a ceiling board retaining clip carried by and extended from the end bar of the U-shaped tubular member to which the brackets are connected.

2. In a ceiling board jack, the combination which comprises a rectangular-shaped frame including opposed U-shaped tubular members having end bars connecting telescoping side arms, means for securing the side arms in adjusted positions, telescoping posts the Y-shaped elements having diverging arms on the upper ends positioned to extend downwardly from the ends of the frame, a cross bar integral with and carried by the diverging arms of the Y-shaped element of the post at one end of the frame, spaced anchoring prongs having vertically extended slots therein bolted to the cross bar with the bolts extended through said slots, side bars extended from the side arms of the U-shaped tubular member adjacent said cross bar and pivotally connected to the cross bar, brackets pivotally connected at one of the ends thereof to the ends of the diverging arms of the Y-shaped element of the post at the end of the frame opposite to the end at which the post with the cross bar on the upper end is positioned, the opposite ends of said brackets being connected to the side arms of the U-shaped tubular member at the end of the frame opposite to the end to which the cross bar is connected at points spaced inwardly from the end bar of the U-shaped tubular member, means for retaining ends of the brackets in the plane of said U-shaped tubular member, and a ceiling board retaining clip carried by and extended from the end bar of the U-shaped tubular member to which the brackets are connected.

3. In a ceiling board jack, the combination which comprises a rectangular-shaped frame including opposed U-

shaped tubular members having end bars connecting telescoping side arms, set screws in the side arms of retaining the side arms in adjusted positions, tubular posts having friction caps on their lower ends, Y-shaped elements slidably mounted in said posts and extended upwardly therefrom, set screws for retaining the Y-shaped elements in adjusted positions in the tubular posts, said Y-shaped elements having diverging arms, a cross bar integral with and extended across the diverging arms of the Y-shaped element at the fixed end of the jack, spaced anchoring prongs adjustable mounted on said cross bar, side bars connecting the cross bar to the U-shaped tubular member at the fixed end of the frame, brackets pivotally connecting the side arms of the U-shaped tubular members at the opposite or movable end of the frame to the ends of the diverging arms of the Y-shaped element of the post at the movable end of the frame, a clip having a threaded shank carried by the end bar of the U-shaped tubular member at the movable end of the frame and positioned with the shank extended through an opening in said end bar, and a spring on said shank for urging the clip toward the frame.

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