March 1, 1960 J. B. BOURGEOIS 2,926,880

SCAFFOLDING SUPPORTS

Filed June 22, 1955

FIG. 1

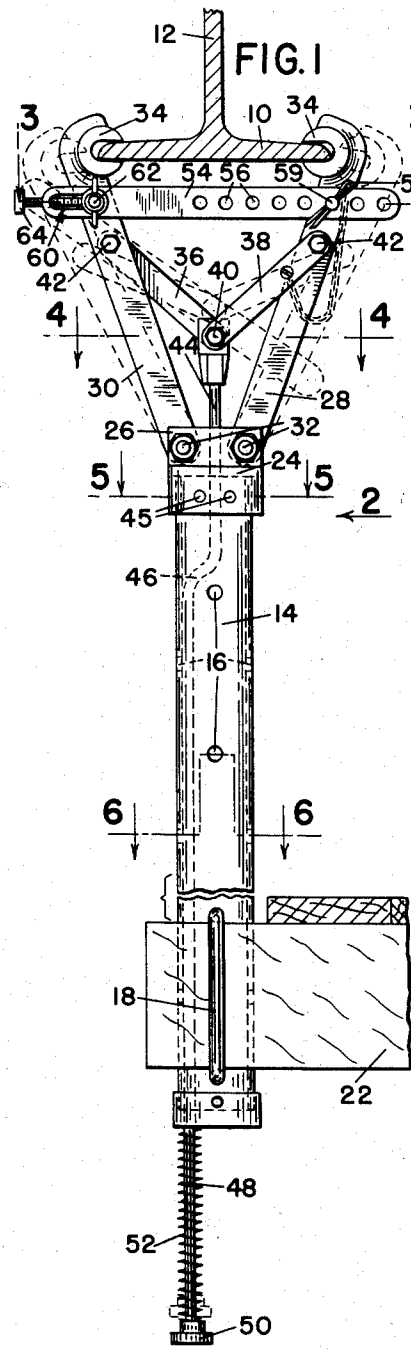


FIG. 2

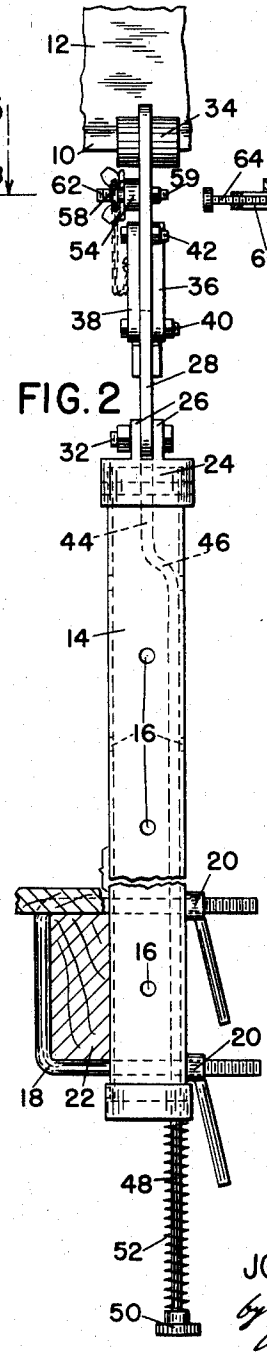


FIG. 3

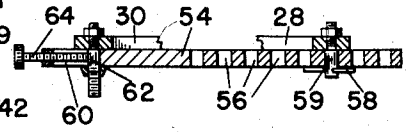


FIG. 4

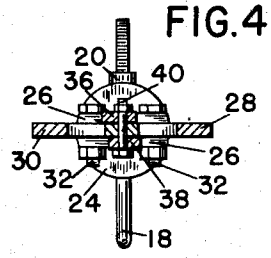


FIG. 5

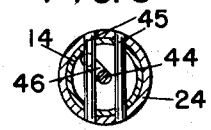
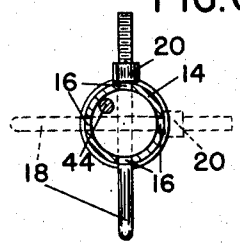


FIG. 6



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2,926,880

SCAFFOLDING SUPPORTS

John B. Bourgeois, Worcester, Mass.

Application June 22, 1955, Serial No. 517,174
1 Claim. (Cl. 248—327)

This invention relates to a new and improved support particularly adapted for staging and scaffoldings, and the principal object of the invention resides in the provision of means for clamping a novel support to the lower flange of an I-beam or the like overhead rail, beam, etc., for suspending planks or other staging from the ceiling whereby the staging or scaffolding may be used without the necessity of supporting the same on the floor, and avoiding any interference with machinery, furniture, etc., all to the end that repairs, painting, etc. may be done without interruption to machine operation or the like.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which

Fig. 1 is a view in elevation showing the invention applied to the lower flange of an I-beam or the like, parts being in section;

Fig. 2 is a view in elevation, parts being in section and looking in the direction of arrow 2 in Fig. 1; and

Figs. 3, 4, 5 and 6 are sections on the respective lines in Fig. 1.

This invention has been disclosed as being applied to and removable from the flange 10 of an I-beam 12, although it may be supported from other means wholly above the floor and in no way depending upon any floor-supporting means of any kind.

The construction comprises a hollow tubular member 14 which is provided with aligned pairs of apertures or the like 16 for the purpose of receiving clamps such as the U bolts indicated at 18. The legs of the clamps pass through the aligned pairs of apertures 16 and are clamped to the hollow tubular member as for instance by nuts 20, to securely clamp a supporting member such as a plank 22 to the tubular member in suspended relation to the overhead support 10 as will be described hereinafter.

At its upper end, the tube 14 is provided with a cap 24 having a pair of spaced parallel plates 26 thereon, these plates forming pivot axes for a pair of pivoted clamping arms 28 and 30.

The clamping arms 28 and 30 may be pivotally mounted on plates 26 by any convenient means such as a nut and bolt indicated at 32, and at the free ends thereof, these clamping arms are provided with laterally extended C-shaped jaws indicated at 34. These jaws may be made of a size to accept the edges of flange 10, as clearly shown in Fig. 1.

The arms 28 and 30 are moved to and from each other by a linkage comprising the links 36 and 38 pivoted together at 40 and pivoted at their opposite ends at 42 to the respective clamping arms 28 and 30. At the pivot connection 40, the two links are operatively connected to a rod 44 which extends downwardly into the hollow tube 14. The rod 44 passes between a pair of guide-pins 45 and is bent away from the axis of the tube as indicated at 46 and thus avoids any interference with the U-clamp 18 when it is positioned in any of the pairs of holes 16.

The rod 44 continues down through the tube and out the lower end thereof, as indicated at 48, and terminates in a hand-grip or the like 50 which forms the reaction point for a spring 52 tending to maintain the rod in its downwardmost position, i.e., the position in which the jaws 34 are engaged with the edges of flange 10.

In order to release the device from the beam in Fig. 1, it is merely necessary to push upwardly on the hand-grip 50 to release the jaws 34 from the flange 10, and to reposition the device, it is necessary only to again push upwardly on the hand-grip 50 to separate these jaws sufficiently to accept the edges of another flange where the device is to be replaced.

A safety device comprising a bar 54 may be applied by means of the various apertures 56 to corresponding studs or the like on the two clamping arms 28 and 30. A chain-held cotter-pin 58 or similar means may be utilized to secure the safety-bar 54 for instance to a stud 59 on the member 28. The bar is provided with a slot 60 at the opposite end thereof and accepts a pin 62 on the arm 30. A thumbscrew or the like 64 may then tighten the safety-bar 54 in the required position and this not only serves to draw the jaws closer together in firm engagement with the edge portions of flange 10, but also acts as a safety mechanism by which it is impossible for the jaws to shake loose from the locked position thereof as shown in Fig. 1, whereby the staging, etc. is securely held and may be used in any way desired without the possibility of accidental dislodgment.

It will be seen that this invention provides a relatively simple and easily operated but strong, rugged and foolproof device for suspending staging, planking, etc. from the ceiling of a building or from beams commonly found under the roof in factories or any large buildings, and the floor of the building is not depended upon for support in any way, so that there is no interference with activities which are located upon such floor while repair, maintenance, etc. is carried out by operators using the staging resting on planks 22.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claim, but what I claim is:

A device of the class described comprising a hollow elongated tubular member, means comprising a pair of swinging arms to support the tubular member from overhead, said arms being pivoted to the tubular member at one end thereof, operating means to swing said arms to grip or release an overhead support, said operating means extending to the other end of the tubular member and including an axially movable elongated rod and a link pivoted to each arm and the rod, means to yieldingly maintain the rod in position causing the arms to grip the support, said rod being manually manipulated to actuate the arms in either direction, said rod being located within the tubular member, a removable positive locking bar rigidly connecting the arms together and preventing accidental displacement thereof from the support, and a quick detachable pin for engagement in a selected one of a series of corresponding holes in the bar, the pin being mounted on one of said arms, the bar being pivoted to the other arm.

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