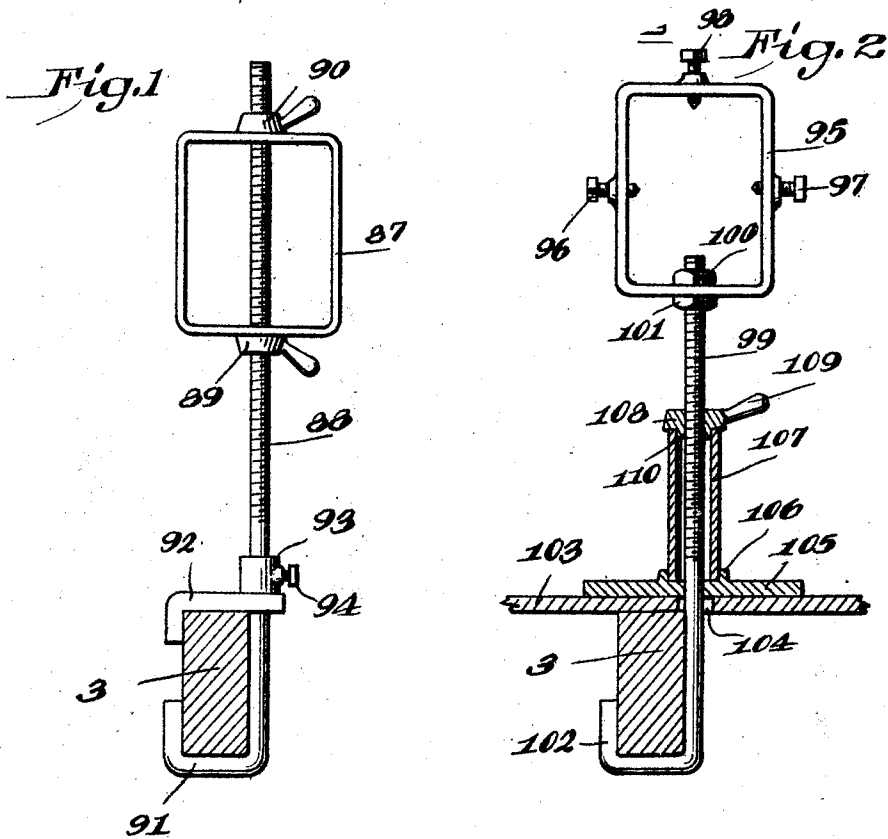


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F. B. JOHNSTON
SCAFFOLD BENCH AND ANCHOR

Filed March 15, 1922



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UNITED STATES PATENT OFFICE.

FRANK B. JOHNSTON, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN SAFETY DEVICE COMPANY, A CORPORATION OF NEW YORK.

SCAFFOLD BENCH AND ANCHOR.

Application filed March 15, 1922. Serial No. 544,058.

To all whom it may concern:

Be it known that I, FRANK B. JOHNSTON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in a Scaffold Bench and Anchor, of which the following is a specification.

The present invention relates to improvements in combined scaffold benches and anchors, and more particularly to an improvement upon my prior Patent No. 1,437,593, granted December 5, 1922.

The invention contemplates the provision of a device situated, within a building in course of erection or under repair and involving the use of a clamp by which to secure the inner portion of an outrigger which projects through a window or opening to the exterior of the building where it is available for the support of scaffolds; the device further involving a bench combined with the clamp for fixed support upon a part of the building.

Objects of the invention are to furnish a secure support for the outriggers avoiding the tilting of the same upon the window sill in either direction; the provision of adjustability over a comparatively wide range to effect an accurate horizontal disposition of the outriggers even with the window sills or bottoms of the openings through which they extend; to enable the secure anchoring of the device to parts of the building, for instance the floor joists; and to provide a compact structure, simple and inexpensive admitting of its quick and convenient attachment both to the building and to the outriggers.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Figure 1 shows a joist or beam in section

with one form of bench and anchor applied thereto, and constructed according to the present invention, and

Figure 2 shows both a joist and part of the floor in section with a modified form of the invention applied thereto.

The invention provides for the holding and anchoring of the inner portion of an outrigger to avoid the rocking of the same upon the window sill of a building, or the like, and to otherwise firmly hold the outrigger in place to the end that a safe place may be provided for workmen upon a scaffold which is supported by the outrigger.

In accordance with the invention, and referring first to Figure 1, a rectangular frame or yoke 87 is shown as adapted to receive the outrigger beams, the beams being separated by the screw standard 88 upon which the nuts 89 and 90, which hold the frame 87 in place and permit of its vertical adjustment, are threaded. The threaded standard 88 in this instance constitutes in part its own holding frame, the standard being continued downwardly and bent to provide a lower clamp member 91 shaped to engage beneath the floor joist 3 and made to engage the bottom and opposite sides of the joist and to cooperate with an upper clamp member 92 fitting upon the top side of the joist 3 and having a flange extending downwardly along the side thereof opposite that embraced by the lower portion of the standard 88. This upper clamp member 92 carries a sleeve 93 slidable upon the standard 88 and having a set screw 94 taking into the standard for the purpose of securing the clamp member 92 in an adjusted position, for instance against the joist 3, as shown in Fig. 1. The lower portion of the standard in this instance constitutes the holding frame while the clamp members 91 and 92 take the place of the anchoring means for securing the device to a part of the building. In this instance the frame 87 may be moved up and down upon the screw standard 88 by appropriately turning the nuts 89 and 90 and an accurate vertical ad-

justment may be had to secure the correct horizontal alignment of the outrigger.

In Fig. 2, a somewhat similar rectangular closed frame 95 is provided having a pair of lateral set screws 96 and 97 and a top set screw 98 threaded through positions in the sides and upper bar of the frame respectively and projecting into the space within the frame, such set screws being suitably pointed and adapted to take into the outrigger beams. The bottom bar of the frame 95 is adapted to receive the upper end of the threaded standard 99, lock nuts 100 and 101 being screwed upon the standard 99 at opposite sides of said lower frame bar whereby the frame 95 is adjustably held in a correct vertical position on the shaft. As in Fig. 1, the standard 99 extends downwardly and carries a clamp member 102 at its lower end adapted to embrace the lower portion of the floor joist 3. In this case, floor boards 103 are shown as laid upon the joist 3, a suitable opening 104 being made for the passage of the screw standard 99, and a base plate 105 being placed upon the floor boards 103 just above the joist and opening 104, the plate being suitably apertured to slidably receive the lower unthreaded portion of the standard 99. A flange 106 is made concentric with the standard 99 and spaced therefrom upon the upper surface of the base plate 105 for the purpose of receiving freely the lower end of a sleeve or barrel 107 which is spaced from the standard 99 and has its upper end engaged by a nut 108 threaded upon the standard 99 and having a handle 109 to facilitate its rotation thereon. The nut 108 rests with its lower face directly upon the upper end of the barrel 107 and centers the barrel by the use of a depending inner flange 110 extending from the lower face of the nut 108 and being of a diameter to fit snugly and rotatably within the upper portion of the barrel.

The standard 99 is inserted downwardly through the opening 104 whereupon it is turned so that the clamp 102 is engaged beneath the joist 103. The device is then lifted. The clamp member 102 is firmly moved in place by turning the nut 108 which is stationary by reason of its support upon the barrel 107 and it therefore causes the upward traverse of the standard 99 until the final position of the clamp member 102 is reached, whereupon the parts are tightly bound in place. The outrigger beams are received through the frame 95 and are engaged by the set screws therein and also if desirable they find a point of support upon the upper end of the screw standard 99. The beams however are properly held at a suitable elevation from the lower bar of the frame in order to permit of a relatively

wide range of vertical adjustment without interference by reason of the outrigger beams striking the screw standard 99. By loosening and subsequently tightening the lock nuts 100 and 101 the lifting or the lowering of the frame upon the screw standard is accomplished.

The connection of the outrigger directly to the floor joist, which is a permanent part of the building structure, will insure a firm support, and the construction of the combined bench and anchor will enable the attachment of the device quickly and conveniently to the floor structure, and the accurate and quick adjustment of the bench or clamp to the outrigger.

The device is intended to replace the use of barrels which were placed directly upon the floor to support the outrigger, and the use of ropes attached between the outrigger and one of the floor joists to prevent the rocking of the inner portion of the outrigger upwardly from the barrel. Heretofore blocks of wood were placed upon upper ends of the barrels in order to secure a proper alignment of the outrigger with the window sill, but in all such cases it has always been difficult to secure a proper alignment and inclination would always occur in the platform or scaffold which makes it exceedingly dangerous to work upon.

The blocks cannot be found of a suitable size or thickness to meet all requirements, and to give even a roughly accurate alignment has required that these blocks be placed not only upon the barrels but also upon the window sills. With the old method, there is nothing to prevent the outriggers from swinging sidewise or toppling off the barrels, and especially is this so when a number of blocks have to be built up beneath the outriggers.

The present device avoids all of these objections, provides for the accurate alignment in a very short time of the outriggers and it will be appreciated that the device as proposed may be constructed and sold at small cost.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

What is claimed is:

1. An outrigger support comprising a screw standard having a clamp member at its base adapted to embrace the lower portion of a floor joist, a second clamp member adapted to be placed above the joist, a sleeve on the second clamp member about the standard, securing means carried by the

sleeve and engaging the standard for supporting the latter in the sleeve, and an outrigger frame on the standard.

2. An outrigger support comprising a standard having a clamp member at its lower portion, a second clamp member slidably receiving the standard, a sleeve on the second clamp member, means carried by the

sleeve to elevate the standard, and an outrigger frame adjustably mounted on the standard and having means adjustable therein for engaging the outrigger. 10

In testimony that I claim the foregoing as my invention, I have signed my name hereunder.

FRANK B. JOHNSTON.