

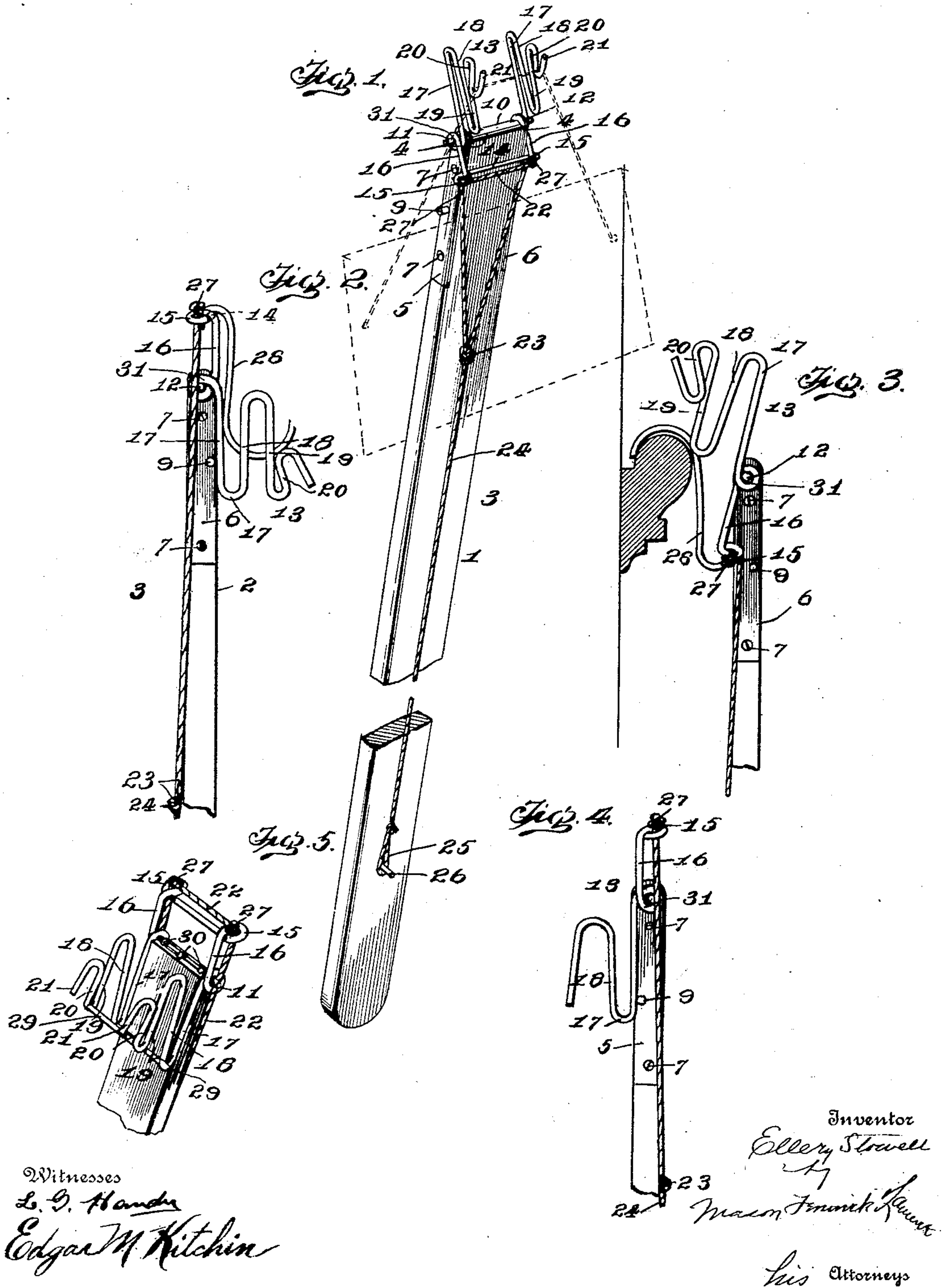
No. 704,222.

Patented July 8, 1902.

E. STOWELL.  
HOISTING DEVICE.

(Application filed Nov. 13, 1901.)

(No Model.)





# UNITED STATES PATENT OFFICE.

ELLERY STOWELL, OF DENVER, COLORADO.

## HOISTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 704,222, dated July 8, 1902.

Application filed November 13, 1901. Serial No. 82,146. (No model.)

*To all whom it may concern:*

Be it known that I, ELLERY STOWELL, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Hoisting Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in hoisting devices, and more particularly to picture-hook and picture-frame hangers.

The object in view is the production of means particularly adapted for positioning picture-hooks upon moldings and also designed to facilitate placing the wire of picture-frames within the said hooks after such positioning, the removal of said wire and hooks being accomplished by said means.

With this and other objects in view the invention consists of a bar of any suitable size and length, a yoke pivoted intermediate its arms to said bar, hooks formed at the outer ends of said arms, and means for rotating said yoke upon its pivot.

It also consists of certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a perspective view of a hoisting device embodying the features of my invention, parts being broken out for the saving of space. Fig. 2 represents a view in side elevation of the same, a picture-hook being carried by the yoke thereof. Fig. 3 represents a similar view of the same with the hook positioned upon a molding and the parts in position after placing said hook. Fig. 4 represents a view in side elevation of a slightly-modified form of hoisting device, and Fig. 5 represents a perspective view of another slight modification of the same.

Referring to the drawings by numerals, 1 indicates any preferred form of bar of suitable length, having a front face 2 and a rear face 3 and formed with a transverse groove, as 4, in its upper end, said groove being nearer the rear face than the front. Any suitable side plates, as 5 and 6, may be provided, ex-

tending above the end of bar 1 and having their upper ends perforated, and said plates are secured to the edges thereof by any desired securing means, as 7. A lug, as 9, projects from one of said side plates for purposes hereinafter mentioned, or the plates 5 and 6 may be omitted and the lug 9 will then project from the side of bar 1.

Rotatably mounted within groove 4 is a suitable shaft, as 10, whose ends, as 11 and 12, project through the side plates 5 and 6, the said shaft being designed to support a yoke, as 13. The yoke 13 is formed of any suitable material, preferably stiff wire, and comprises a cross-bar, as 14, formed at its ends with eyes, as 15 15, parallel arms, as 16 16, projecting from said eyes and each provided with an eye, as 31, to receive its respective projecting end of shaft 10, whereby it revolvably engages the same, and the said arms flare outwardly slightly, as at 17 17, beyond their engagement with shaft 10, each of said arms being bent upon itself, as at 18, again bent, as at 19, a third time bent, as at 20, and again bent, as at 21, whereby a plurality of plications are produced, forming a series of hooks.

Any suitable cable, as 22, extends longitudinally of bar 14 through eyes 15, and the two parts thereof are brought together, as at 23, and secured to a cable, as 24, which latter cable extends longitudinally of bar 1 and is preferably formed at its lower end with a loop, as 25, designed to be passed over a lug, as 26, extending from the rear face of bar 1. Suitable stops, as 27 27, are formed in cable 22 above the eyes 15, that portion of the cable between said eyes being of slightly greater length than cross-bar 14, whereby said portion of the cable is never in a taut condition. It will be seen that when the parts are in the position shown in Fig. 2 the portion 17 of one of the arms 16 is designed to strike against lug 9, whereby the backward movement of the said arms is limited.

In positioning a picture-book, as 28, upon a molding the same is positioned, as seen in Fig. 2, with the small or wire-supporting hook portion engaging cross-bar 14 and also inclosing the longitudinal portion of cable 22, the body portion of said hook resting against the front face 2 of bar 1, the upper end of



said bar being then positioned near the molding to which the hook 28 is to be applied. The parts being in this position cable 24 is given a pull, which rotates yoke 13, and the parts assume the position shown in Fig. 3, the said hook 28 having been swung over the end of rod 1, and thereby being inverted, so that its large hook portion has been brought into engagement with the contiguous molding, of course the rear face 3 of bar 1 being held during the entire operation next to the wall. To place the wire of a picture-frame upon the hook so positioned, it is only necessary to engage said wire by a pair of the hooks formed on the free ends of arms of yoke 13, the wire placed in said hook, and the hoisting device withdrawn by a vertical downward movement, the cable 24 being held taut throughout this latter operation, as seen in Fig. 1, by the engagement of its loop 25 with lug 26.

Although I prefer to employ the number of plications shown in Figs. 1, 2, and 3 and described with reference thereto, yet it will be understood that I may use a greater or less number, and by reference to Fig. 4 it will be seen that I contemplate employing a modified form of hoisting device in which only a minimum of plications are formed upon the yoke-arms. It will also be seen by reference to Fig. 5 that I contemplate the use of another slightly-modified form of my invention, and this consists in connecting the opposite pairs of plications of the yoke-arms by suitable rods, as 29 29, whereby a grated basket or cradle is formed for the reception of the larger hooked portion of the hook 28, the manner of applying the said hook to a molding being the same as above described except that the small hooked portion is not swung over by engagement with cross-bar 14, but said hook 28 is inverted by being rotated while being supported upon the rods 29.

Several advantages are gained by placing groove 4 nearer the rear than the front face of bar 1, among which is the fact that the cable 22 is thereby nearer the said rear face at its upper end and less liable to become entangled with the surrounding parts. Numerous other valuable advantages are attained by this particular arrangement of groove and the shaft 10, carried therein, and the same is true of all of the other features of invention of the present improved structure; but I do not wish to be understood as limiting myself to any particular or prescribed details, but shall feel at liberty to deviate from those herein disclosed within the spirit and scope of the present invention.

It will of course be seen that staples or other suitable securing means, as 30 30, may be employed instead of plates 5 and 6 for retaining shaft 10 in position within the groove 4.

It will of course be understood that the bar 1 is during operation grasped by the operator and supports the weight of the articles hoist-

ed, and it will be further seen by reference to Fig. 5 of the drawings that when the bars 29 are employed the lug 9 is dispensed with, as the bar 29 nearest bar 1 will come into contact therewith, and thereby prevent further backward movement of the yoke-arms. It will further be seen that the ends of shaft 10 may, if desired, be fixed to arms 16 and the shaft be rotatably secured in position. The bar 14 may in such instance be omitted or employed, as preferred.

Although I have specifically set forth particular arrangements of elements, yet I do not wish to be understood as limiting myself to the precise structure specified, but shall feel at liberty to deviate therefrom to the extent of the spirit and scope of the present invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hoisting device, comprising a supporting-bar, a yoke having its arms pivoted intermediate their length to said bar, at the upper end thereof, and means near the lower end of said bar for rotating said yoke upon its pivots, substantially as described.

2. A hoisting device, comprising a supporting-bar, a yoke having its arms pivoted intermediate their length to said bar, a normally downwardly opening hook formed upon each of the said yoke-arms, and means for rotating said yoke upon its pivots for inverting the position of said hooks, substantially as described.

3. A hoisting device, comprising a supporting-bar, formed with a transverse groove in its upper end, a shaft supported therein, a yoke pivotally supported by said shaft, hooks formed upon the arms of said yoke and normally opening downwardly, and means for rotating said yoke upon its pivot for inverting the position of said hooks, substantially as described.

4. A hoisting device, comprising a supporting-bar, a yoke pivoted to the upper end thereof, means for limiting the backward movement of the arms of said yoke, a hook formed upon each of said yoke-arms normally opening downwardly, a cable secured to the upper end of said yoke and passed downwardly longitudinally of said supporting-bar and designed to be operated for rotating said yoke and thereby altering the position of said hooks, and means for retaining said cable in a taut condition when said upper portion of the yoke is at the lowest point of its movement, substantially as described.

5. A hoisting device, comprising a supporting-bar, a shaft extending transversely of the upper end thereof, a yoke formed of a cross-bar, an eye at either end thereof, an arm extending at a right angle to said cross-bar at each end thereof, each of said arms being formed with an eye adapted to inclose one end of said transverse shaft and thereby pivotally engaging the same and projecting be-



yond said shaft and formed into a number of plications, a cable connecting and passed through said eyes and extending downwardly longitudinally of said supporting-bar, and means for retaining that portion of said cable between the said eyes in a slack condition, substantially as described.

6. A hoisting device, comprising a supporting-bar, a yoke pivoted thereto intermediate the length of its arms, a plurality of plications formed in the length of said arms to one side of their pivot, transversely-arranged bars connecting portions of the plications of the opposite arms and forming a grated basket or cradle designed for the reception of a picture-hook, and means for rotating said yoke for inverting the said hook, substantially as described.

7. A hoisting device, comprising a yoke formed of parallel arms, each of said arms

being formed with a plurality of plications, means securing said arms together, means pivotally supporting said yoke, and means for rotating the same upon its pivot, substantially as described.

8. A hoisting device, comprising parallel arms, plications formed upon one end of each of said arms, an eye intermediate the length of each of said arms, designed to receive pivotal supporting means, a bar connecting said arms, and eyes carried by said arms for receiving operating means, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ELLERY STOWELL.

Witnesses:

CORNELIUS FERRIS, Jr.,

JAMES A. FLEMING.