(No Model.) 2 Sheets—Sheet 1.

T. VASSALL.

EXTENSION SCAFFOLD BRACKET.

No. 441,722. Patented Dec. 2, 1890.

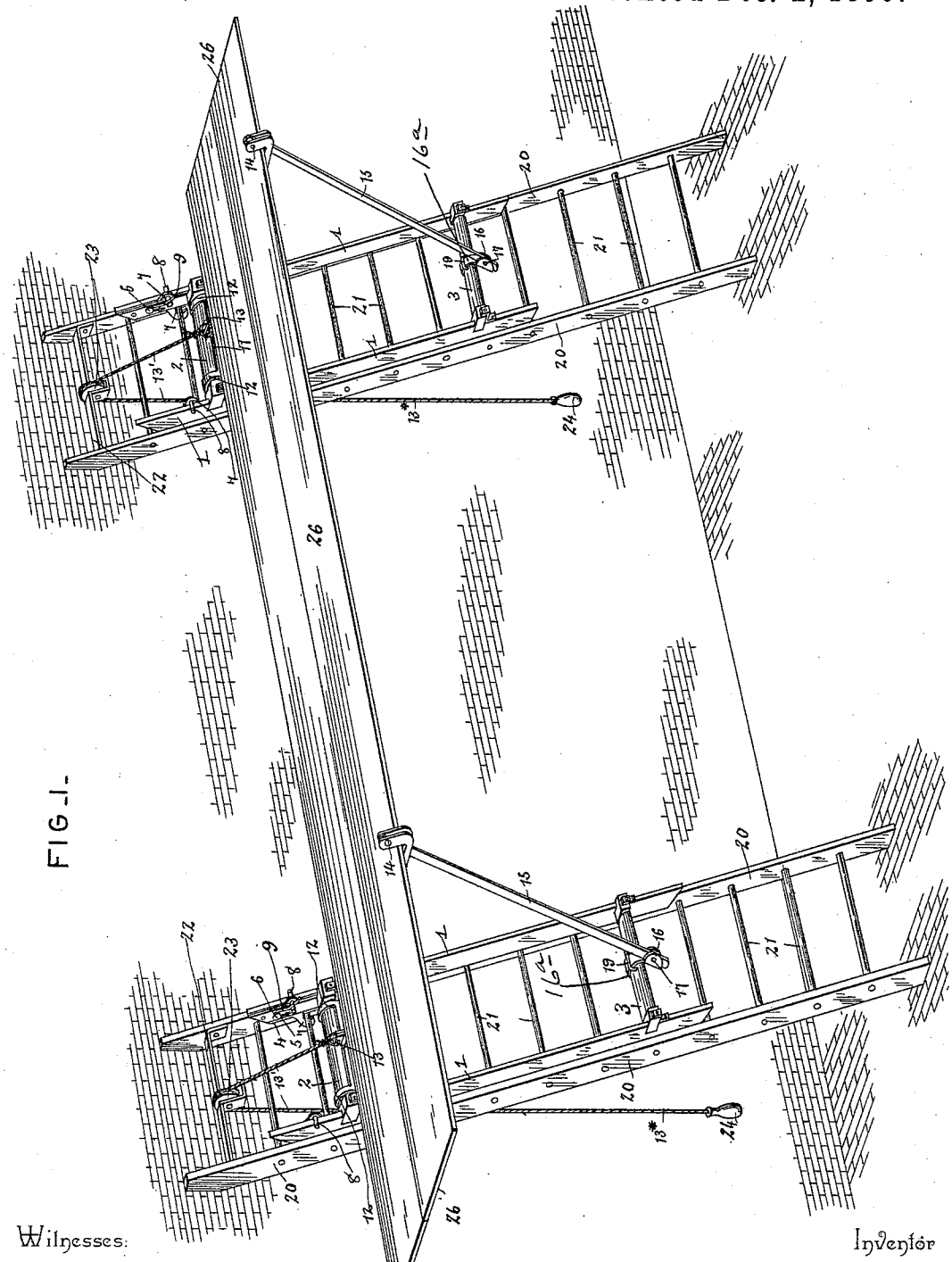


FIG. 1.

Witnesses:

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W. S. Duvall.

Inventor

Thos. Vassall

By his Attorneys,

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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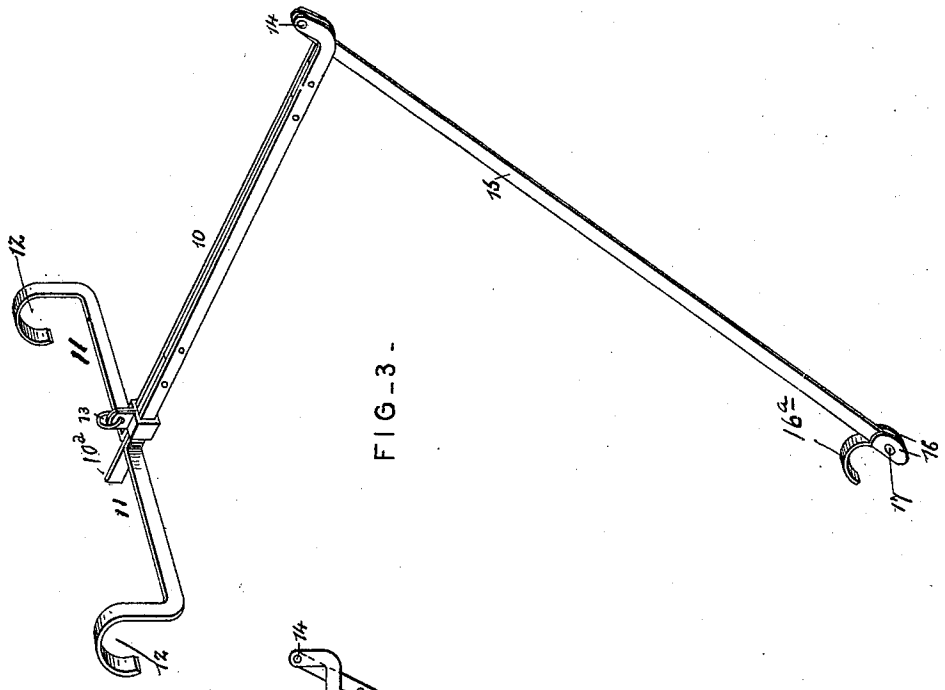


FIG. 3.

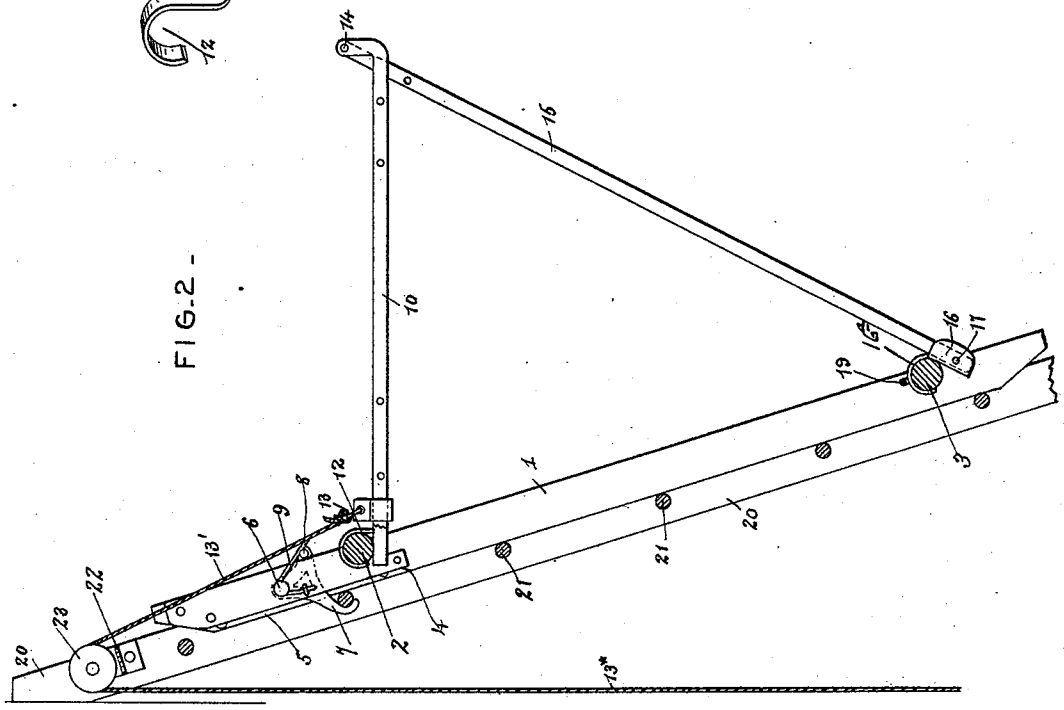


FIG. 2.

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UNITED STATES PATENT OFFICE.

THOMAS VASSALL, OF DE WITT, IOWA.

EXTENSION SCAFFOLD-BRACKET.

SPECIFICATION forming part of Letters Patent No. 441,722, dated December 2, 1890.

Application filed May 27, 1890. Serial No. 353,308. (No model.)

To all whom it may concern:

Be it known that I, THOMAS VASSALL, a citizen of the United States, residing at DeWitt, in the county of Clinton and State of Iowa, have invented a new and useful Extension Scaffold-Bracket, of which the following is a specification.

This invention has relation to portable scaffolding for use by painters, decorators, and others; and among the objects in view are to provide a cheap and convenient scaffolding for use in connection with the ordinary ladders, which scaffolding is adapted to support a platform and to be raised and lowered at will to and from the ground and to be locked in any of its adjusted positions.

With the above general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a ladder, a scaffolding constructed in accordance with my invention supported thereby. Fig. 2 is a vertical section. Fig. 3 is a detail in enlarged perspective of the bracket.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I construct a bracket-frame which consists of a pair of parallel side bars 1, the ends of which are chamfered, as shown, said bars being connected near their upper ends by a cross-bar 2 and near their lower ends by a similar cross-bar 3, said bars being let into the outer faces of the side bars 1, as shown. Above the bar 2 the side bars 1 have their inner faces recessed, as at 4, which recesses are covered by metal plates 5, provided with bearing-openings, through which and the side bars are passed bearing-pins 6, the inner ends of which project some distance beyond the plate, as shown, and terminate in heads. Pivotally mounted upon the bearing-pins 6 within the recesses 4 is a pair of opposite bell-crank levers 7, the rear ends of which are of hook shape, for a purpose hereinafter apparent, and project beyond the rear edges of the side bars 1. The front ends of the levers have passed therethrough transverse bars or pins 8, the outer ends of which take against the front faces of the side bars 1 and serve to limit the forward swing of the bell-crank levers.

9 designates a spring, there being one secured to each of the plates 5, after which they are coiled about the extensions of the pins 6 and terminate under the transversely-disposed pins 8 at the inner ends of the latter. The tendency of the spring is to support the bell-crank levers, so that their rear hooked ends project a slight distance beyond the rear faces of the side bars 1. This constitutes the bracket-frame, and I will now proceed to describe the bracket supported by the frame and designed to support the platform hereinafter mentioned.

The bracket is formed by two metallic rods bolted together on each side of rod 10^a and combined to form the bracket-arm 10, the rear ends of said rods being bent, as at 11, at a right angle to the arm and having their extremities upwardly and rearwardly curved, forming hooks 12, adapted to embrace the upper bar 2 of the bracket-frame. The rod 10^a is extended beyond the T-head 11 to engage under a rung of the ladder and prevent upward movement of the arm 10. An eye 13 is secured to the bracket-arm near the T-head portion formed by the lateral bends 11, and to the same is connected a bracket-elevating cord or rope 13*. The front extremities of the bars 10 are upwardly bent and perforated to form bearing-ears, and in the same, by means of a bolt 14, is adjustably secured a rearwardly and downwardly disposed inclined brace 15. The lower end of the brace is transversely perforated, and is embraced at each side by a pair of ears 16, through which and the brace is passed a pin 17. The ears 16 are formed at the front end with a hook 16^a, which hook passes under a keeper 19 and over the transverse bar 3 of the bracket-frame.

20 designates the opposite side bars of an ordinary ladder provided with the usual rungs 21, and at its upper end with a cross-bar 22, in the center of which is journaled a loose grooved pulley 23, over which the operating cord or rope 13* is designed to loosely run.

In practice two ladders are employed and two brackets and bracket-frames, and their conjoint operation is as follows: The ladders

are placed against a wall, and between the side bars of each is mounted a bracket-frame carrying a bracket, the cords or ropes of the frames passing over the loose pulleys 23 of the ladders and being provided at their lower extremities with ordinary pulls 24. The side bars of the bracket are designed to ride over the rungs of the ladder, and may be readily raised and lowered from the ground through the medium of the operating-ropes 13*, before mentioned. By raising the bracket-frames slightly above the rungs of the ladders at the altitude desired and slowly lowering the same the hook-shaped extensions of the bell-crank levers will engage over said rung near the ends of the same, and the outer extended portions of the stop-pins will serve to lock said levers in position upon the rungs. Upon the two arms of the bracket is mounted a platform 26, upon which the workman may stand while at work.

To lower the bracket-frames the ropes are drawn upon so as to elevate said frames a sufficient distance to disengage the levers from the rungs, and by quickly slackening the ropes the rear curved edges of the levers will readily ride over said rungs, as will be apparent.

In some instances the bracket may be used independently of the bracket-frame and applied directly to a ladder.

Having thus described my invention, what I claim is—

1. The combination, with the side rails of the bracket provided with recesses upon their inner sides near their upper ends, plates covering the recesses, bell-crank levers pivoted in the recesses and terminating at their rear ends in hooks and provided at their front ends with transverse pins, the outer ends of which act as stops, springs coiled about the bearings of the levers and terminating under the inner ends of the pins, a bracket secured to the frame, and a rope for elevating the frame, of a ladder having rungs and opposite side bars, between which the side bars of the frame are adapted for longitudinal movement, substantially as specified.

2. The combination, with the ladder, the bracket-frame, and means for raising and lowering the same upon the ladder, of the upper and lower transverse bars forming a part of the bracket-frame, the bracket-arm 10, terminating at its rear end in the T-head 11, the ends of which are hook-shaped to embrace the upper transverse rail, said arm having a projection extending beyond the head 11 to engage a round of the ladder, and the inclined brace 15, connected to the outer end of the bracket and at its lower end provided with a hook engaging the lower rail of said bracket-frame, substantially as specified.

3. The bracket composed of the rods 10, having their inner ends upturned to receive the supporting-stand and their outer ends provided with the cross-head 11, having hooks 12, and the brace 15, having its inner end connected to the rods 10 and its outer end provided with hooks 16^a, having ears 16 to clasp the brace, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

THOMAS VASSALL.

Witnesses:
W. A. COTTON,
D. WHITNEY.