No. 826,041. PATENTED JULY 17, 1906.

B. LONG & I. V. BRYANT.

SCAFFOLD.

APPLICATION FILED AUG. 4, 1905.

3 SHEETS—SHEET 1.

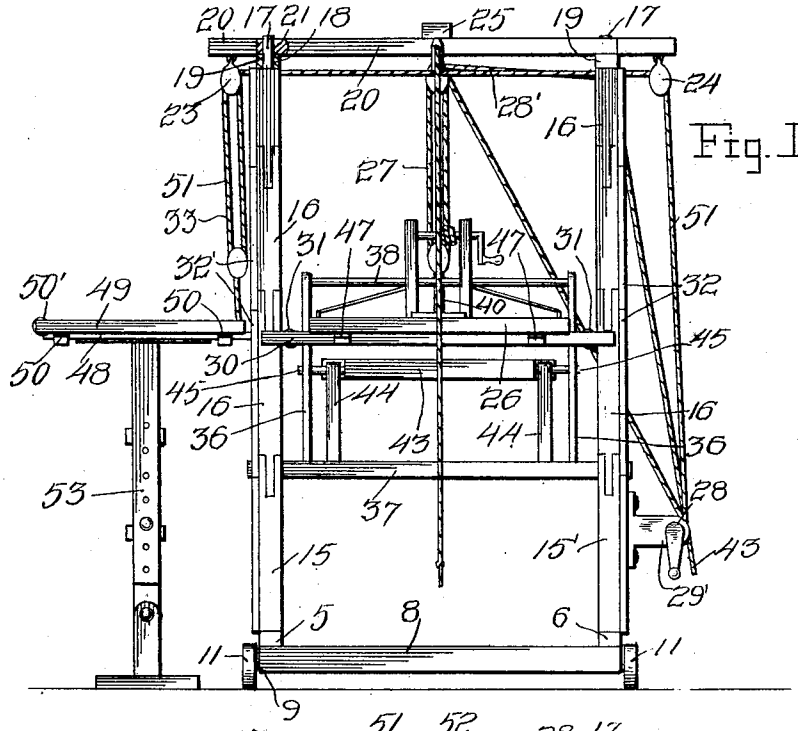


Fig. 1.

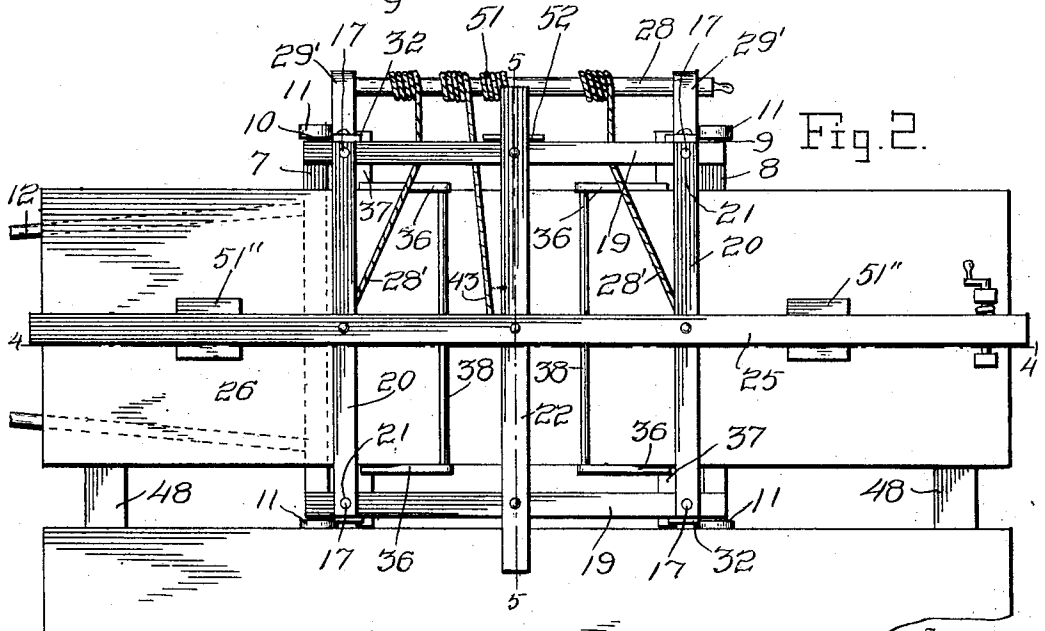


Fig. 2.

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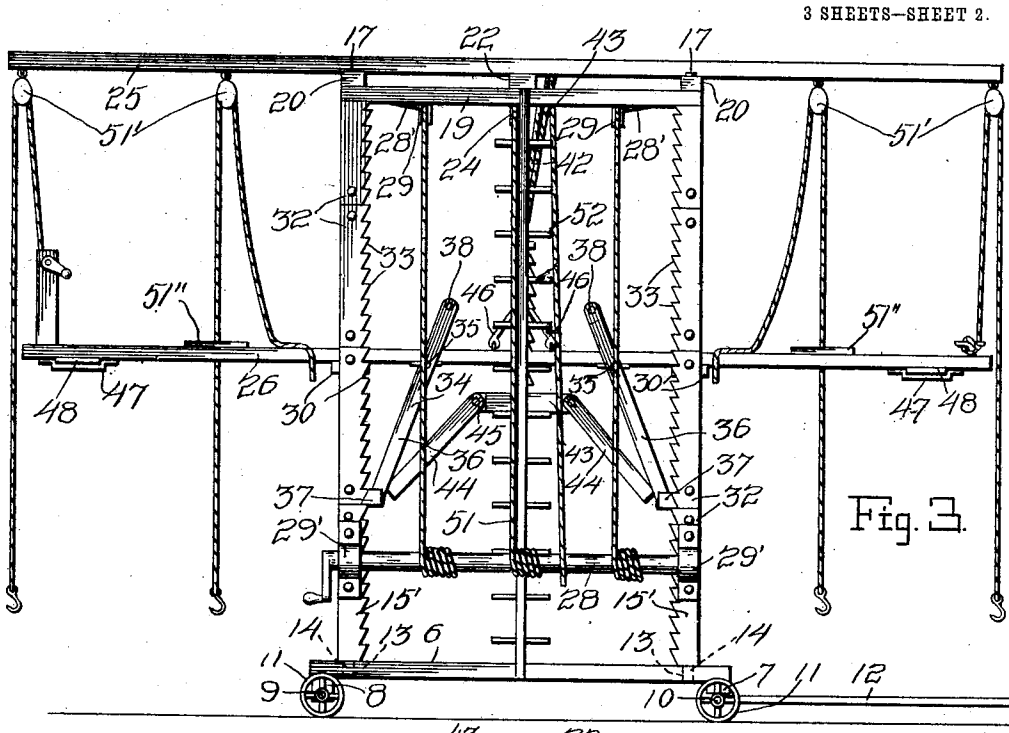


Fig. 3.

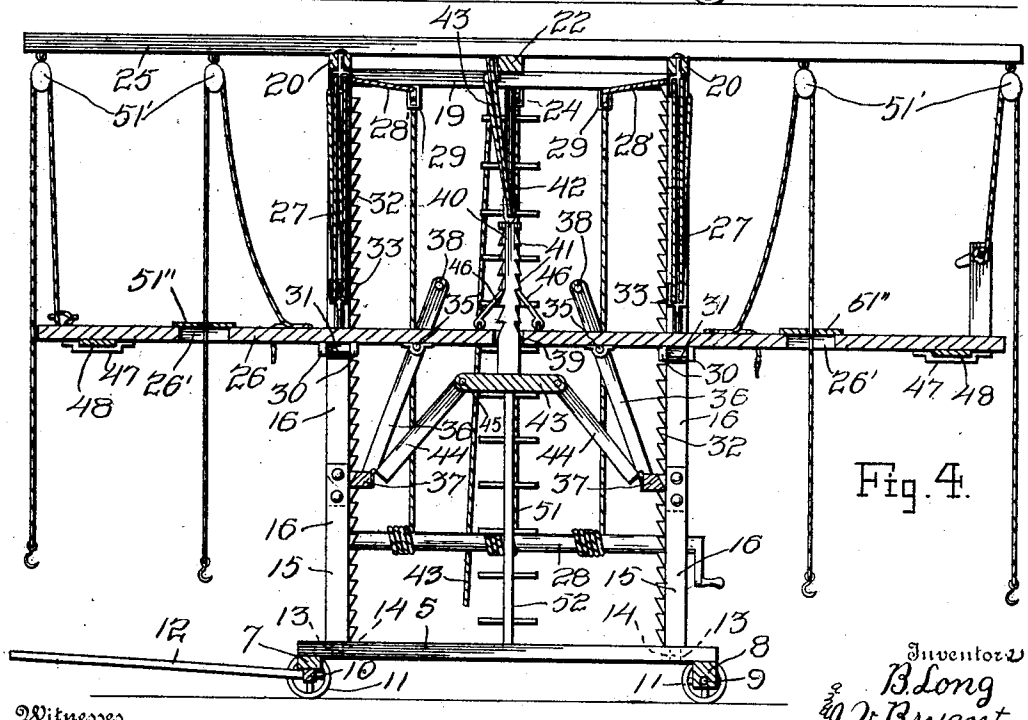


Fig. 4.

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3 SHEETS—SHEET 3.

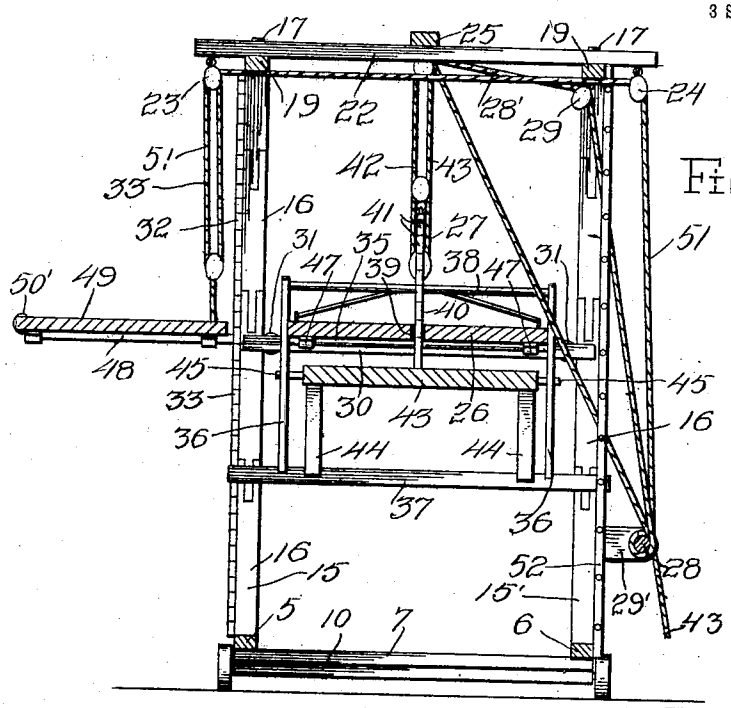


Fig. 5.

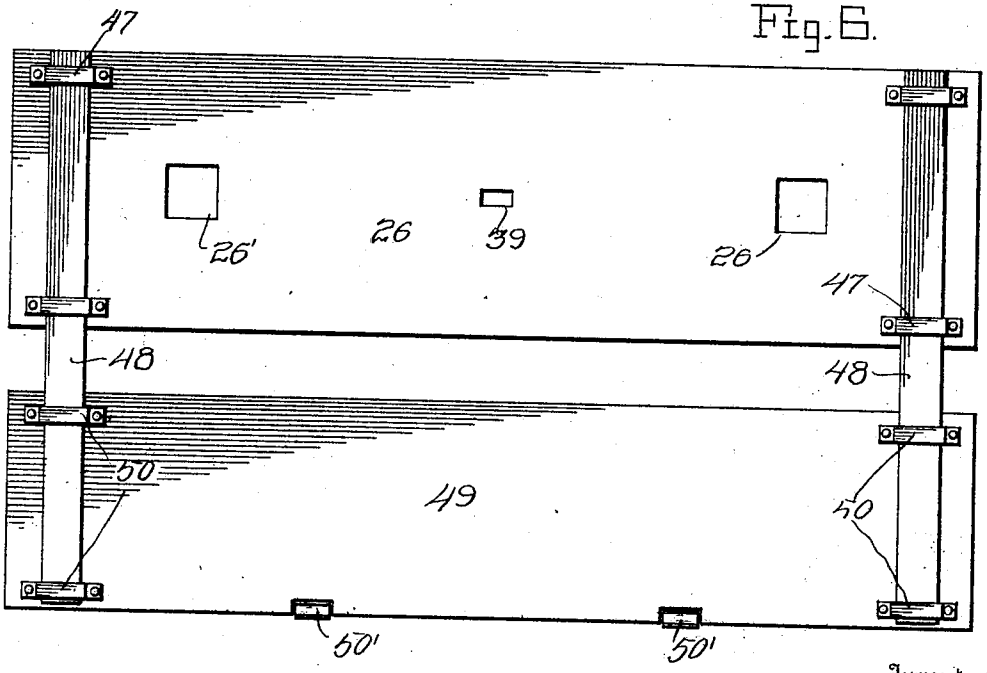


Fig. 6.

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UNITED STATES PATENT OFFICE.

BARTLEY LONG AND ISAAC VINTON BRYANT, OF BIDWELL, OHIO.

SCAFFOLD.

No. 826,041. Specification of Letters Patent. Patented July 17, 1906.

Application filed August 4, 1905. Serial No. 272,679.

To all whom it may concern:

Be it known that we, BARTLEY LONG and ISAAC VINTON BRYANT, citizens of the United States, residing at Bidwell, in the county of Gallia, State of Ohio, have invented certain new and useful Improvements in Scaffolds; and we 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 scaffolds, and more particularly to those designed for use in building, painting, papering, &c., and has for its object to provide a scaffold of this kind which will be adjustable to suit different conditions, which will include a vertically-movable platform, and which will include means for moving the platform.

Other objects and advantages will be apparent from the following specification, which describes an embodiment of the present invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the present scaffold. Fig. 2 is a top plan view with the supplemental platform in position. Fig. 3 is a rear elevation showing the winding-drum. Fig. 4 is a section on line 4 4 of Fig. 2, taken longitudinally of the main platform and forwardly of the supporting-falls. Fig. 5 is a section taken on line 5 5 of Fig. 2 at right angles to Fig. 4 and showing one of the platform-latches in elevation. Fig. 6 is a bottom plan view of the platform, showing the guides and supplemental platform-supports.

Referring now to the drawings, the present invention comprises a supporting-frame including front and rear sills 5 and 6, respectively, which are mounted upon bolsters 7 and 8, the latter being secured to a fixed axle 9 and the former being pivoted to a steering-axle 10, both being provided with wheels 11, and the steering-axle has shafts 12 secured thereto. The remaining portions of the scaffold are carried by the sills 5 and 6, and it is thus apparent that the scaffold may be moved sidewise over the ground. Adjacent to the ends the sills 5 and 6 have vertical sockets 13, which receive the lower reduced ends 14 of corner-uprights, the sill 5 carrying the front uprights 15 and the sill 6 carrying the rear uprights 15′. These uprights each include a plurality of detachably-connected sections 16, so that the sections may be removed or replaced to vary the length of the uprights. The uppermost sections 16 are provided with upwardly-extending fingers 17, which are engaged in openings 18, formed in top braces 19, one of these braces thus connecting the forward and the other the rearward uprights. Forwardly and rearwardly extending horizontal connecting-braces 20 are provided and have openings 21 therein which receive the fingers 17, and these braces 20 thus each connect one of the rearward with one of the forward uprights.

Secured to the braces 19 there is a cross-bar 22, which extends parallel to the braces 20, and outwardly beyond the braces 19 and at its front and rear ends the cross-bar 22 carries a double pulley 23 and a single pulley 24, respectively. A second cross-bar 25 is secured upon the bar 22 and upon the cross-braces 20, the latter resting upon the braces 19, as shown, and this cross-bar 25 has a plurality of pulleys secured thereto, as will be later described.

A platform 26 is provided, and it is disposed between the forward and rearward pairs of uprights, this platform projecting beyond the sides of the frame, and this platform is connected with the cross-braces 20 at their centers by means of block and fall mechanisms 27, the cables 28′ of which are engaged in pulleys 29, which depend from the rearward top braces 19 and descend thereabeyond to a winding-drum 28, mounted in brackets 29′, which are secured to the rearward uprights 15′, adjacent to the lower ends thereof.

Secured beneath the platform 26 there are laterally-spaced forwardly and rearwardly extending pairs of cross-beams 30, the beams of each pair being spaced laterally and extending at their ends at opposite sides of the adjacent uprights 15 and 15′, the cross-beams having rollers 31 journaled therebetween inwardly of the uprights and resting against the latter, and it will thus be seen that the ends of these cross-beams form guides for the reception of the uprights to prevent longitudinal displacement of the platform, the rollers steadying the platform during its movement.

Secured to the forward faces of the forward uprights 15 and to the rearward faces of the rearward uprights 15′ there are vertically-extending ratchet-plates 32, having their

teeth 33 directed inwardly with their flat surfaces uppermost. A pair of latching devices are provided and are connected with the platform 26, these latches being arranged for engagement of the ratchet-plates to hold the platform against downward movement. The latches each include a pivot-rod 35, and these pivot-rods are disposed beneath the platform 26 transversely thereof and at opposite sides of the center of the platform, the pivot-rods being connected with the platform, as shown. A pair of end members 36 are secured to the ends of the pivot-rod of each latch, extending downwardly therebeyond and upwardly above the platform, and these end members have a latch-bar 37 secured to their lower ends, the end members 36 being movable pivotally with the pivot-rods to bring the latch-bars into and out of engagement with the teeth 33 of the ratchet-plates 32. Above the platform 26 the end members 36 are connected by rods 38, as shown.

The platform 26 is provided with a central vertical opening 39, in which there is engaged an oppositely-notched stem 40, the notches being arranged to form downwardly-directed ratchet-teeth 41. This stem is connected at its upper end with the cross-bars 25 by means of a block and fall 42, the cable 43 thereof hanging loose for manual operation of the latch mechanism. Beneath the platform 26 the stem 40 has a horizontally-extending head 43, secured thereto, and pivotally connected with the sides of this head there are members 44, which extend downwardly and outwardly and which are connected pivotally at their lower ends with the latch-bars 37. It will be seen that the arrangement is thus such that when the stem 40 is moved downwardly the latch-bars 37 are moved outwardly and into engagement with the teeth 33 of the ratchet-plates 32 to hold the platform against downward movement and that when the stem 40 is moved upwardly the latch-bars will be moved out of engagement with the ratchet-teeth. Pins 45, which are carried by the head 43 and which act as pivot-pins for the members 44, lie between the end members 36 of the two latches 34, thus limiting the movement of these latches toward each other and preventing the latches moving into such position that downward movement of the stem would bring them together instead of separating them. It will thus be seen that when the winding-drum 28 is revolved the platform will be raised, the stem 40 having been moved to bring the latch-bars 37 out of operative position. The latch-bars will move into engagement with the ratchet-plate when the cable 43 is released. Dogs 46 are pivoted to the platform 26 and are movable to lie in engagement with the ratchet-teeth 41 to hold the stem 40, with the latches, in inoperative position, as will be readily understood. The latch-plates 32 are formed of a plurality of sections to permit of lengthening or shortening the uprights 15, as mentioned above.

Secured to the under surface of the platform 26, adjacent to the ends thereof, there are guides 47, which receive slidably-supporting arms 48, which, as shown in Fig. 2, extend forwardly beyond the frame and have disposed thereupon a supplemental platform 49, the later being provided with guides 50 therebeneath, which receive the arms 48, and a cable 51, which is engaged in the pulley 24, is connected with this supplemental platform by means of a double pulley 23′, secured thereto and with which the cable is engaged, it being also engaged in the pulley 23 to form a double block and fall, as shown, to support it, and is also secured to the winding-drum.

It will be apparent that the arms 48 may be engaged in the guides 47 to extend rearwardly beyond the frame and that the supplemental platform 49 may be disposed at the rearward side of the frame as desired. Rollers 50′ are carried by the outer edge of the supplemental platform and rest against the wall adjacent to which the scaffold is disposed. A plurality of pulleys 51′ are carried by the cross-bar 25 and have cables engaged therewith, which may be used in raising supplies to the platforms, certain of these cables passing through openings 26′ in the platform 26, and, as shown, pivoted closures 51″ are provided for these openings. A ladder 52 is disposed at the rearward side of the frame and gives access to the platform. An adjustable support 53 is provided and may be disposed beneath the supplemental platform 49 to support it.

What is claimed is—

1. A scaffold comprising a frame, vertically-extending ratchets carried by the frame, a platform disposed in the frame for vertical movement, means for moving the platform vertically, guides for the platform, latches carried by the platform and arranged for cooperation with the ratchets to hold the platform at different points of its downward movement, said latches comprising end members pivotally connected with the platform and extending vertically therebeyond in both directions, latch-bars carried by the lower ends of the end members, a stem slidably engaged in the platform and having notches therein, members pivotally connected with the stem and with the latches for movement of the latch-bars into engagement with the ratchets when the stem is moved slidably in one direction, and dogs pivoted to the platform and arranged for movement into engagement with the notches of the stem to hold said stem against movement to bring the latches into operative position.

2. A scaffold comprising a wheeled frame, said frame including corner-uprights and

connecting top braces, cross-bars mounted upon the top braces, a platform disposed in the frame for vertical movement, a winding-drum mounted in the frame, block-and-fall connections between the winding-drum and the platform for movement of the latter, a supplemental platform carried by the first-named platform, block-and-fall connections between the supplemental platform and the winding-drum, pulleys carried by the other cross-bar and lying above the first-named platform, hoisting-ropes engaged in the pulleys, and means for holding the first-named platform at different points of its vertical movement.

3. The combination with a scaffold including a frame and a platform disposed in the frame for vertical movement, of guides carried by the platform therebeneath at its ends, arms removably engaged in the guides and extending laterally beyond the frame in one direction, a cross-bar carried by the frame at its top, a supplemental platform having guides therebeneath in which the outwardly-extending portions of the arms are removably engaged, pulleys carried by the cross-bar, a winding-drum, cables connected with the winding-drum and with the first-named platform and arranged to raise the latter when the drum is revolved to wind the cables thereupon, a rope engaged in the pulleys and secured at one end to the supplemental platform and at its other end to the winding-drum, and an adjustable support for the supplemental platform.

In testimony whereof we affix our signatures in presence of two witnesses.

BARTLEY LONG.
ISAAC VINTON BRYANT.

Witnesses:
EDITH BRYANT,
SARAH BELL BRYANT.