D. J. MUNS.

ADJUSTABLE SCAFFOLD.

APPLICATION FILED FEB. 28, 1911.

1,017,686. Patented Feb. 20, 1912.

Fig. 1.

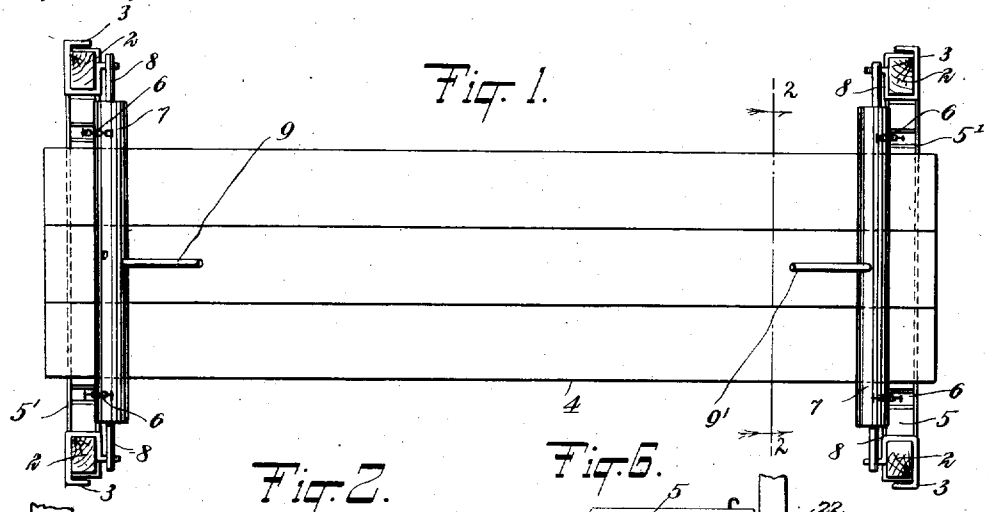

Fig. 2.

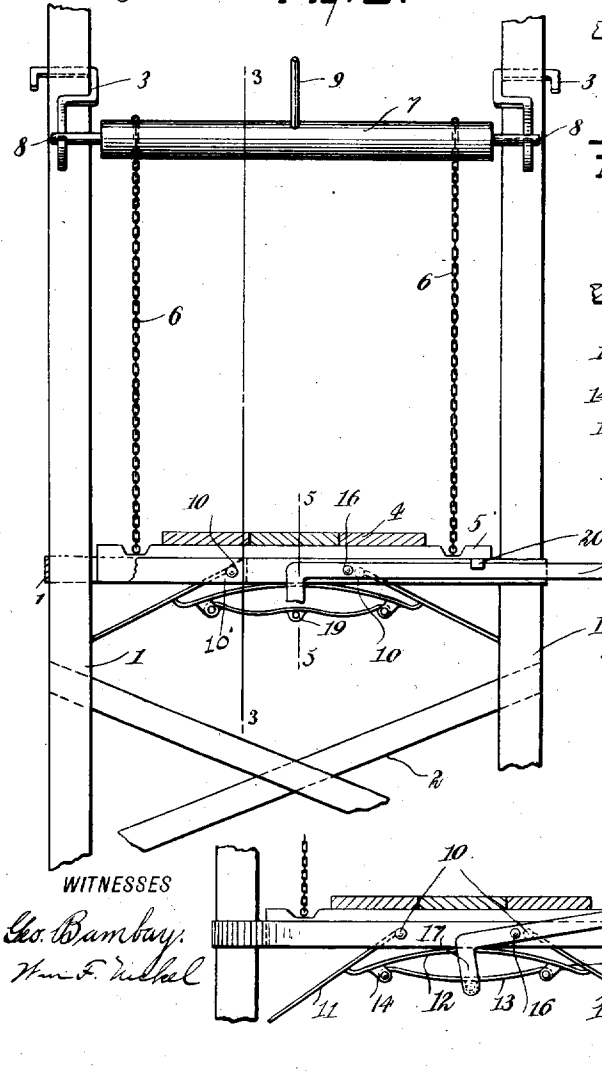

Fig. 6.

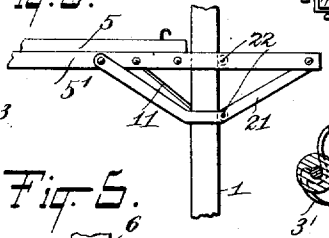

Fig. 5.

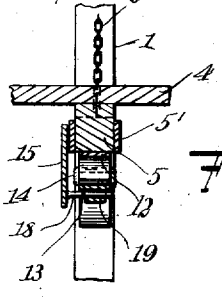

Fig. 3.

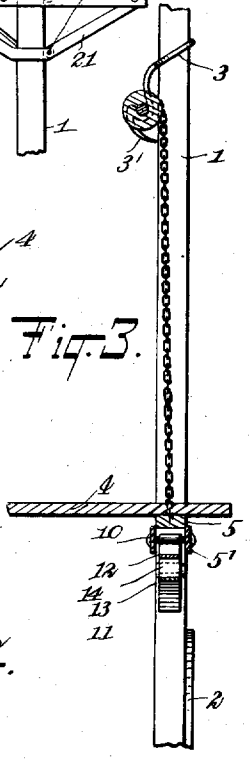

Fig. 4.

WITNESSES

Geo. Bambay.

Wm. F. Dibbel

INVENTOR

David J. Muns

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

DAVID J. MUNS, OF DUBLIN, GEORGIA.

ADJUSTABLE SCAFFOLD.

1,017,686. Specification of Letters Patent. Patented Feb. 20, 1912.

Application filed February 28, 1911. Serial No. 611,393.

To all whom it may concern:

Be it known that I, DAVID J. MUNS, a citizen of the United States, and a resident of Dublin, in the county of Laurens and State of Georgia, have invented a new and Improved Adjustable Scaffold, of which the following is a full, clear, and exact description.

My invention is a scaffold which can be used in building operations and for other kind of work, and which is so constructed that the platform thereof can be raised and lowered at will.

To this end it comprises a winding drum or the like which can be operated by a person on the scaffold, to lift the same to any height desired; and means are provided for holding the scaffold when the same is raised to the required height, which can be readily engaged with a support so as to hold the platform of the scaffold in its raised position, and readily released therefrom to permit the same to be lowered.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a top plan of my improved scaffold; Fig. 2 is a vertical section thereof on the line 2—2 of Fig. 1; Fig. 3 is a vertical section on the line 3—3 of Fig. 2; Fig. 4 is a sectional view similar to Fig. 2, but showing only the platform of the scaffold and the retaining means for holding it in place; Fig. 5 is a section similar to that shown on Fig. 2, showing the retaining means on a larger scale; and Fig. 6 presents a modified form of guiding attachment for the platform of the scaffold.

In putting my invention into practice I employ 4 upright supports 1, which can be made of ordinary 2x4 timbers, such as are employed in stationary building scaffolds of the ordinary type. These uprights 1 are braced by cross-pieces 2, of which a suitable number can be used, and the arrangement thereof varied to suit conditions. To the uprights 1 are attached hooks 3, which serve to support the weight of the platform of my scaffold in a manner presently to be described. These hooks 3 have their upper ends bent around the upright supports 1, and their lower ends are sharpened to a point, as shown at 3′, which can be forced into the wood of the upright supports 1 and hold or prevent the hooks 3 from slipping.

The floor of the platform of my scaffold is composed of a suitable number of planks 4, supported at their opposite ends by means of cross-beams 5. These cross-beams 5 are each inclosed by a rectangular band 5′, which extends beyond the ends of the cross-beams 5, and around the upright supports, so as to form guides for the platform and keep the same from swinging lengthwise or sidewise when the same is to be lowered or raised.

6 are chains connecting the cross-beams 5 to a winding roller 7, mounted on a spindle 8, the ends of which project beyond the ends of the roller 7, and are supported by means of recesses in the hooks 3, above the pointed ends 3′, as shown particularly on Figs. 2 and 3. Each of these winding rollers 7, of which there are two, one arranged at each end of the platform of the scaffold, has one or more operating levers or arms 9 attached to the same for the purpose of causing the winding roller 7 to be rotated.

In order to retain the scaffold in whatever position conditions may require, I make use of a pair of retaining dogs 11, which dogs are pivoted at 10 to the under side of the cross-beams 5. One pair of these retaining dogs is attached to each of the cross-beams 5, and their pivots 10 are arranged in recesses 10′ in the underside of the cross-beams 5. These retaining dogs 10 further extend in opposite directions, and when they are in operative position, their ends will engage the sides of the upright supports 1, and the weight of the platform of my elevator will be supported thereon, the friction between the dogs and the uprights preventing the platform from falling. These retaining dogs are controlled by means of a leaf spring 12, one of which is arranged beneath each of the cross-beams 5 and fastened to the retaining dogs 11 at its opposite ends. Beneath this leaf spring 12 is another spring 13, connected by means of loose hinges 14 to the spring 12, and controlled by a lever 15. This lever 15 is pivoted at 16, and has a down-turned end 17, in which is mounted a transverse pin 18. This transverse pin 18 fits in an aperture in a lug 19 formed on the lower side of the leaf spring 13.

20 is a catch or projection on the outer side of each of the cross-beams 5, in order to hold the lever in such position that the dog will be thrown into engagement with the uprights 1.

In order to raise the platform of the scaffold, the lever 15 is released from the projection or catch 20. This causes the springs 12 and 13 to hold the dogs 11 in the position shown on Fig. 4, with their ends withdrawn from the sides of the upright supports 1. By pulling on the lever 9, the winding roller 7 can be turned and the scaffold raised to the required height. Then, by pressing downward with the foot on the lever 15, the pin 18 will be caused to press upward against the spring 13. This will force the spring 12 to flatten itself out to a certain extent against the under side of the cross-beam 5, and throw the dogs 11 so that their ends will abut against the sides of the upright 1. When the lever 9 is now released, the weight of the scaffold will cause the dogs 11 to engage the uprights 1 tightly enough to prevent slipping, and hold the elevator platform in place. It will be understood that I provide a winding roller 7 and retaining dogs with their operating lever 15 at both ends of the platform of the scaffold. Whenever it is desired to lift the scaffold, the workman can wind the chains at one end until that end is raised to a slight extent. The dogs 11 are then thrown out to engage the uprights, and the lever 15 placed under the catch 20. The other end of the scaffold can now be raised to an equal distance, thus drawing the platform to a level. In this way the entire platform can be raised step by step to the required height. When used for the purpose of building walls, the workman laying bricks or putting other materials into place has nothing to do but simply keep the scaffold at the same height as the wall he is building, and this can easily be done by raising the platform of the scaffold at a slight distance at regular intervals of time.

It will be understood that the hooks 3 can be slid up and down on the uprights 1, so that when the platform of the scaffold is once raised nearly to the same level as the winding roller 7, the hooks 3 can be pushed up along the supports 1 into new positions in order to raise the platform of the scaffold farther.

By means of my improved scaffold, the labor and materials of making a separate stationary structure for every building that is to be erected, are saved. My scaffold can be made in such sizes as to make it practical to move it about, and I may also make the parts detachable so that after finishing with it in one place I may take it down and remove it for use in another.

On Fig. 6 the bands or straps 5′ extend past the uprights 1, and each supports at its two opposite ends a brace 21. In these braces and in the ends of the bands 5′ are rotatably mounted rollers 21 and 22. These rollers are arranged to move up and down on the outer faces of the uprights 1, thus guiding the platform in its up and down movements. Each roller is equal in length to the width of the side faces of the supports, and is supported at its opposite ends in the bands and braces.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. An adjustable scaffold comprising upright supports, a platform, means for raising and lowering the same, a pair of retaining dogs pivoted to each end of the scaffold, a leaf spring arranged between each pair of dogs and connected to the same at its ends, and a lever for controlling said spring, said lever in one position causing the spring to spread the dogs apart and engage the sides of the uprights to hold the platform of the scaffold in place, and in another position releasing the spring so as to draw the retaining dogs away from the uprights and permit the platform of the scaffold to be moved.

2. An adjustable scaffold comprising supports, a platform, means for raising and lowering the platform relative to the supports, a pair of dogs pivoted to the platform and engaging the supports to hold the platform in position, a leaf spring engaging the retaining dogs and located between the same, a second leaf spring arranged beneath the first spring, and pivotally connected thereto at its ends, a controlling lever connected to the second spring at its center, and a catch for the lever, whereby when the lever is engaged by the catch the springs will be compressed to throw the dogs into engagement with the supports, and when the lever is released the dogs will be withdrawn from such engagement.

3. In an adjustable scaffold, the combination of upright supports, a platform, means for raising and lowering the same, a pair of retaining dogs pivoted to each end of the scaffold, a leaf spring arranged between each pair of dogs and connected to the same at its ends, and means for controlling said spring, said means in one position causing the spring to spread the dogs apart and engage the sides of the uprights to hold the platform of the scaffold in place, and in another position releasing the spring so as to withdraw the retaining dogs from their engagement with the uprights and permit the platform of the scaffold to be moved.

4. An adjustable scaffold comprising upright supports, a platform, means for raising and lowering the same, bands attached

to the scaffold at the corners of the same, passing around the uprights and extending beyond the said uprights, braces having their ends extending beyond said uprights and connected at their ends to the said bands, the said braces being bent downward below the level of the platform, and rollers carried in said bands and said braces to engage the outer faces of the upright supports to guide the platform in its up and down movements.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID J. MUNS.

Witnesses:
L. O. STUBBS,
B. M. GRIER.