J. E. MILLER.

ADJUSTABLE STAGING.

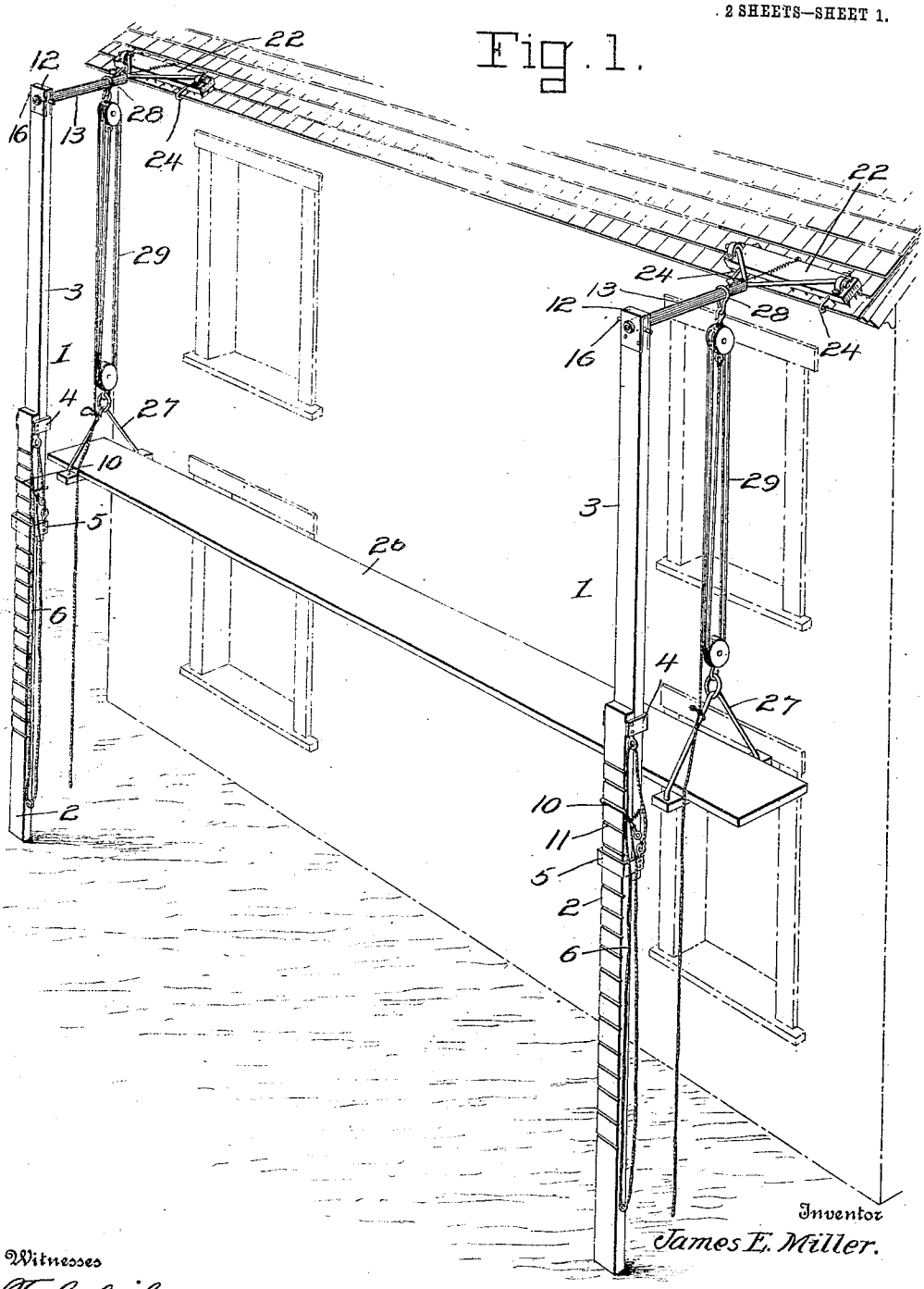
APPLICATION FILED NOV. 17, 1908.

921,431.

Patented May 11, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 5.

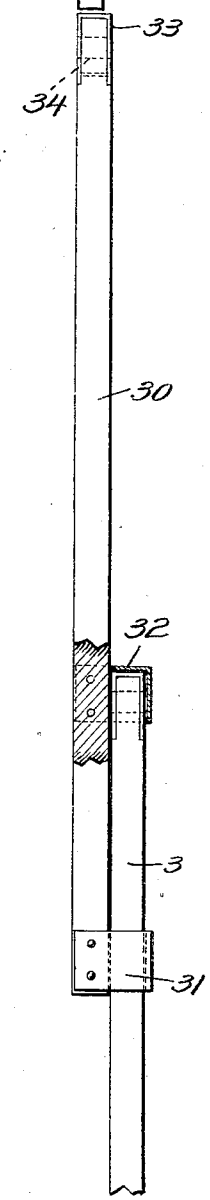
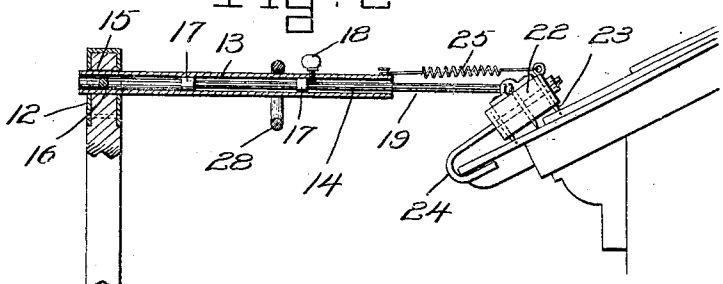


Fig. 2



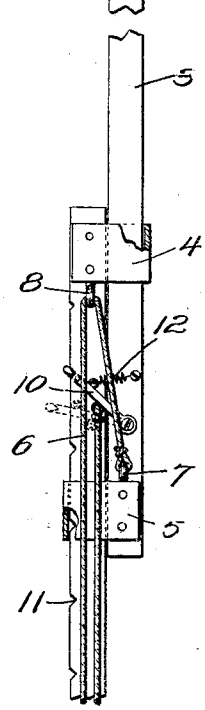


Fig. 3.

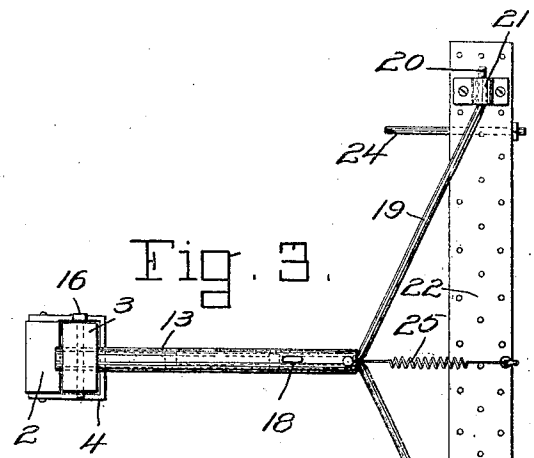
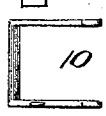


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES E. MILLER, OF FREDONIA, KANSAS.

ADJUSTABLE STAGING.

No. 921,431. Specification of Letters Patent. Patented May 11, 1909.

Application filed November 17, 1908. Serial No. 463,034.

To all whom it may concern:

Be it known that I, JAMES E. MILLER, a citizen of the United States, residing at Fredonia, in the county of Wilson and State of Kansas, have invented new and useful Improvements in Adjustable Staging, of which the following is a specification.

This invention relates to a staging or support for the use of painters and others when painting or otherwise working upon the sides of houses, the object in view being to provide a novel, simple and comparatively inexpensive construction of staging which is readily adjustable for houses of different heights and may be erected for use from the ground and without the necessity of the workman ascending to the roof to adjust and secure the suspension parts of the appliance thereto.

A further object of the invention is to provide a staging which may also be taken down from the ground, which is adapted to support different lengths of stage boards to suit sides of houses of different widths, and which embodies roof engaging holding devices which are adjustable in different respects for application to different forms of roofs.

With these and other objects in view, the invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a perspective view showing the staging erected for use. Fig. 2 is a side elevation of one of the supporting sections of the staging, with parts shown in section. Fig. 3 is a top plan view of the same. Fig. 4 is a detail view of a locking dog. Fig. 5 is a view showing the use of an extension upon the supporting section.

Referring now more particularly to the drawings, my invention comprises a pair of supporting devices which are adapted to be placed any desired distance apart and to engage the roof of the building to support a staging board or platform of requisite length in convenient proximity to the side of the building on which the work is to be performed. These supporting devices are duplicates in construction, each comprising a standard or upright 1 consisting of adjustably connected bars 2 and 3. The bar 2 is adapted to rest at its lower end upon the ground or pavement and is provided at its upper end with a sleeve or collar 4 through which the bar 3 is adapted to slide, the lower end of said bar 3 being provided with a similar collar 5 slidably engaging the bar 2, whereby the bar 3 is stayed and braced and connected for adjustable or extension movement in a true path through the bar 2. By this construction the upper bar 3 may be adjusted upwardly on the bar 2 to vary the height of the standard or upright to any desired degree within the limit of adjustment, and may also be adjusted downward on the bar 2 to collapse the standard in close compass for transportation or storage.

In order to enable the bar 3 to be raised or lowered on the bar 2 by a workman standing on the ground, an adjusting rope or cord 6 is provided and secured at one end to an eye or loop 7 on the guide 5 and passes through a suitable guide 8 on the upper end of the bar 1, and thence downward along one side of said bar and to and through a guide 9 at or near the lower end of the bar. By proper manipulation of this rope the operator may elevate or lower the bar 3, the rope being of sufficient length and having sufficient slack to enable the bar 3 to be raised to its limit of adjustment, whereupon the rope may be tied or knotted in any suitable manner to hold the bars in adjusted position. A locking device 10, however, is preferably provided for this purpose and is connected with the opposite end of the rope or cord, which is extended upwardly from the guide 9. This locking device comprises a bail-shaped member pivotally mounted at the free ends of its arms upon the lower end of the bar 3 and arranged to embrace the bar 2 and having its cross-bar or return portion beveled to a point to engage any one of a series of V-shaped notches or recesses formed in the outer face of the bar 2. The locking bail is adapted to be held in locking position by a spring 12 connecting the same with the bar 3 above the pivots, whereby the bail will be held in locking position at an upward angle, so that the weight of the bar 3 and the pressure falling thereon will serve in connection with the spring to hold the locking device in engagement with the recess in which it is seated and prevent casual release thereof. By pulling downward upon the end of the cord connected therewith, the locking device may be swung downward to the retracted position shown in dotted lines in Fig. 2, so as to enable the standard or upright to be collapsed and detached from the ground, the construction as described thus obviating the necessity

of the operator ascending to the roof or employing a ladder to set the uprights in position for use.

Each bar 3 is suitably reinforced at its upper end by a metallic cuff or strap 12 and supports an extensible holding and suspending arm comprising a tubular section 13 and a rod section 14. The outer end of the tubular section 13 is detachably secured within an opening 15 in the reinforced end of the bar by a cross pin 16, while the inner end of the rod section 14 is provided with spaced journals 17 fitting within the tubular section and on which said rod section is adapted to slide and turn within the tubular section, a set screw 18 being provided on the tubular section to engage the rod section for the purpose of fixedly connecting said sections in adjusted relation. The outer end of the rod section 14 is forked or provided with diverging extremities 19, the free ends of which are bent at right angles to the plane of the suspending arm to form journals 20 on which, by means of knuckles or straps 21, is pivotally mounted an anchor or holding bar or block 22 arranged at right angles to the suspending arm and provided upon its underside with a series of projecting pins or spurs 23 to engage the surface of a shingled roof to support the inner end of the suspending arm therefrom and to thereby hold the standard or upright in position.

Hooks 24 are provided upon the outer longitudinal edge of the anchor board or block to engage under the eaves of the roof to prevent the block from shifting upwardly or inwardly on the roof and to coöperate with the spurs to hold the block from shifting in any direction. By the longitudinal adjustment of the rod section within the tubular section, the length of the suspending arm may be regulated to hold the uprights at a greater or less distance from the roof, and by the lateral pivotal or rotary movement of the rod section within the tubular section the anchor block is adapted to incline at different lateral angles to accommodate itself to gabled portions or irregularities of surface in different kinds of shingled roofs. The pivotal connection of the block with the rod section also adapts the block to incline at different angles to the vertical to engage roofs whose surfaces vary in slope or pitch. A spring 25 couples the forward central portion of the block to the front end of the tubular section 13 and operates to hold the block tilted at a sufficient angle to maintain the hooks 24 in engagement with the edge of the roof. It will be understood that in erecting each supporting member of the staging the rod section 14 is preliminarily adjusted to regulate the length of the supporting arm, the bar 3 then raised to the necessary height, and the holding block then brought in position to engage the roof by proper manipulation of the extended upright, thus enabling both supporting members to be set up by one or more operators standing on the ground.

After the supporting members have been placed in position, a staging board or platform 26 of suitable length is fitted at its ends within slings 27 which are adjustably supported from rings or other suspension devices 28 on the tubular sections of the suspending arm by duplicate sets of block and tackle 29, the board being adjustable through the block and tackle to different elevations as occasion requires and secured in adjusted position by securing the free ends of the tackle ropes to the slings. The board will then be firmly and securely suspended from the suspending arms between the uprights and the adjacent side of the building and sufficiently close to the latter to enable the painter or other workman to easily and conveniently perform his work. After use, the stage board is lowered, the uprights tilted outwardly to withdraw the anchor blocks from engagement with the roof, the suspending arms detached from the bars 3, and the latter lowered on the bars 2, whereupon the appliance in entirety may be conveniently packed for transportation or storage.

From the foregoing description, the construction, mode of use and advantages of my improved portable staging will be readily understood, and it will be seen that the same may be put up and taken down in a convenient manner and with a consequent saving of time and labor. A staging of this character may be manufactured and sold at a comparatively low cost, so as to be within the reach of workmen using this class of devices.

When it is necessary to increase the heights of the uprights to an extent beyond the range of upward movement of the bars 3, an extension bar section 30 may be employed. This bar section is provided at its lower end with a guide sleeve 31 to embrace the bar 3 and above the same with a cap or socket 32 to receive the upper end of said bar 3, whereby the bar 30 may be supported in position. The upper end of the bar 30 is provided with a reinforcement 33 and opening 34 to receive the outer end of the tubular section of the suspending arm, which, in the use of said bar 30 will be mounted upon the upper end of the latter, as will be readily understood.

Having thus fully described the invention, what is claimed as new is:—

1. A staging comprising a pair of supporting uprights, each consisting of adjustably connected sections, extensible suspending rods carried by the uprights, spurred holding devices mounted upon the extension member of each rod, and means for supporting a staging board from the rods.

2. A staging comprising a pair of supporting uprights, each comprising a pair of relatively fixed and adjustable sections, the fixed section being provided with a series of recesses, a pivoted spring-actuated locking device on the adjustable section to engage said recesses, means for raising and lowering the adjustable section and releasing said locking device, extensible suspending rods carried by the uprights, spurred holding devices mounted upon the extension member of each rod, and means for supporting a staging board from the rods.

3. A staging comprising a pair of supporting uprights, each embodying a pair of relatively fixed and adjustable sections, the fixed section being provided with a series of recesses, a bail-shaped spring actuated locking device on the adjustable section embracing the fixed section and adapted to engage said recesses, means for raising and lowering the adjustable section and releasing said locking device, extensible suspending rods carried by the uprights, spurred holding devices mounted upon the extension member of each rod, and means for supporting a staging board from the rods.

4. A staging comprising supporting uprights, an extensible arm carried by each upright, each arm consisting of telescopic fixed and adjustable sections, a spurred anchor block slidably and pivotally supported upon each arm, and means for suspending a staging board from the arms of the uprights.

5. A staging comprising supporting uprights, an extensible arm carried by each upright, each arm consisting of telescopic fixed and adjustable sections, the adjustable section being slidably and pivotally mounted with relation to the fixed section, a spurred anchor block pivotally mounted upon the adjustable section of each arm, and means for suspending a staging board from the arms of the uprights.

6. A staging comprising extensible supporting uprights, an extensible arm carried by each upright, each arm consisting of telescopic fixed and adjustable sections, the adjustable section being slidably and pivotally connected with the fixed section, a spurred anchor block pivotally mounted upon the adjustable section, an expansion spring connecting said block with the fixed section, engaging hooks on the block, and means for suspending a staging board from the arms of the uprights.

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

JAMES E. MILLER.

Witnesses:
W. G. FINK,
GEORGIA M. FINK.