

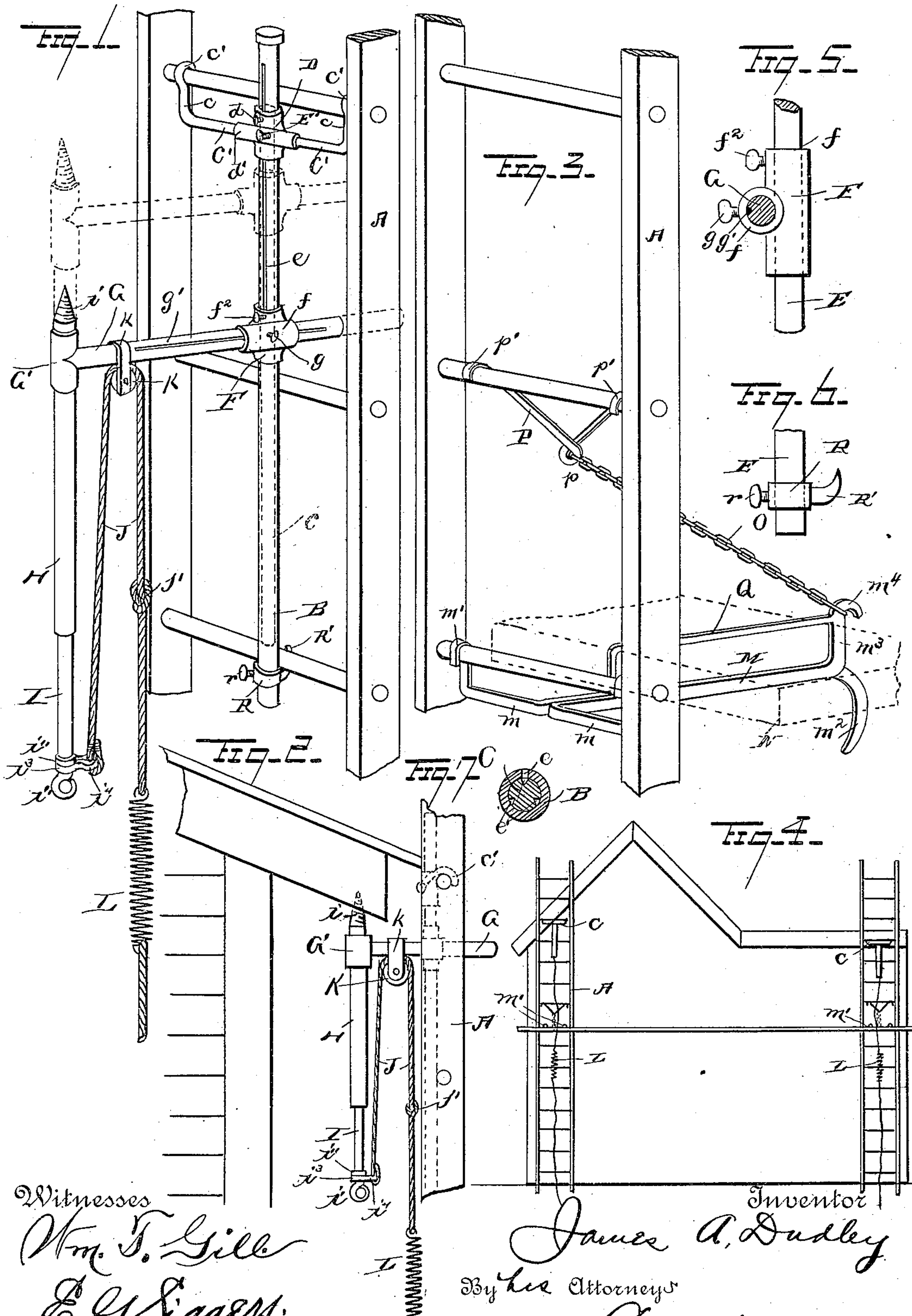
(No Model.)

J. A. DUDLEY.

COMBINED LADDER HOLDER AND SCAFFOLD BRACKET.

No. 356,457.

Patented Jan. 25, 1887.



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES A. DUDLEY, OF DELAVAN, WISCONSIN.

## COMBINED LADDER-HOLDER AND SCAFFOLD-BRACKET.

SPECIFICATION forming part of Letters Patent No. 356,457, dated January 25, 1887.

Application filed May 20, 1886. Serial No. 202,777. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. DUDLEY, a citizen of the United States, residing at Delavan, in the county of Walworth and State of Wisconsin, have invented a new and useful Improvement in Combined Ladder-Holder and Scaffold-Bracket, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in a combined ladder-holder and scaffold-bracket, and has for its object the provision of means which will immovably retain and hold a ladder in vertical position against a building and also support a staging or platform in an elevated position, whereon painters, carpenters, &c., may stand when at work upon buildings and at a distance from the ground.

With these ends in view the invention consists in the peculiar construction and combination of parts, substantially as hereinafter fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my invention applied to a ladder. Fig. 2 is a detail view showing the upper end of a ladder bearing against a building and the means for holding it immovable in position. Fig. 3 is a detail view of the scaffold-bracket, showing its adaptation to the rung of a ladder for supporting a stage-plank, shown in dotted lines. Fig. 4 is a side elevation of a building, showing my invention in position for use. Figs. 5 and 6 are detached detail views of parts of my invention. Fig. 7 is a longitudinal sectional view through the tubular support B and the metallic bar C, and showing the grooves *e* in the latter.

Referring to the drawings, A designates an ordinary ladder placed and supported against the side of a building, and provided with means for holding it immovably against a building and for supporting a stage plank or planks in an elevated position by devices which I now proceed to describe.

B designates a vertical tubular support, which is provided at its upper end with a longitudinal slot, *e*, for a purpose presently described.

C designates a vertically-disposed metallic bar, which extends through and is inclosed by

the tubular support B, and is provided with longitudinal grooves *e'*.

A sliding sleeve, D, is fitted on the upper end of the tube B, on which it is capable of vertical adjustment. This adjustable sleeve has a binding-screw, *d*, which works in a suitable threaded opening therein and projects into and through the longitudinal slot *e* of the tube B, to bear against the bar C and retain the sleeve at any desired vertical adjustment, and thus accommodate the device to different sizes of ladder. The adjustable sleeve is further provided with a right-angled sleeve, *d'*, that is cast integral therewith and carried by the said adjustable sleeve in its movement, and through the rigid sleeve passes a rod, C', which is arranged at right angles to the vertical bar, and is clamped rigidly in the rigid sleeve by a binding-screw, E', that works in a suitable threaded opening and bears on the rod C'. The outer ends of the rod C' are bent upwardly or at right angles, as at *c*, and formed into hooks *c'*, which are adapted to take over one of the rungs of the ladder A and support the tube B and the bar C against vertical movement, as is obvious.

F designates another sleeve, that is fitted to slide freely and longitudinally on the vertical tube B, and this sleeve F carries a binding-screw, *f*<sup>2</sup>, that works in a threaded opening therein and bears on the tube to prevent horizontal and vertical play of the sleeve F. This sleeve F is also provided with a right-angled sleeve, *f*, that is cast integral therewith, and this rigid sleeve *f* is also provided with a binding-screw, *g*, which works in a suitable threaded aperture and binds on a horizontal rod, G, that passes therethrough.

The horizontal bar G is placed and held in the sleeve *f* of the adjustable sleeve F by a thumb-screw, *g*, that passes through the side of the adjustable sleeve, as described. The bar G is provided with a longitudinal groove, *g'*, to receive the end of the screw *g*, and said bar is provided at its outer end with a hollow cross-head, G', that receives one end of a tubular rod, H, through which passes a sliding bar or rod, I, the upper end of which is provided with a screw-threaded pointed end, *i*, which is adapted to be screwed into or enter a cornice or other part of a house or building, to



prevent the rod and ladder from accidental displacement.

The lower end of the rod I is formed into a handle,  $i'$ , so that it can be readily turned to force its threaded pointed end into the building.  $i''$  designates a collar secured upon the rod I near its lower end to form a bearing, against which a second collar,  $i^3$ , bears or operates, the collar  $i^3$  being loosely mounted on the lower end of said rod. The collar  $i^3$  is provided with an arm,  $i^4$ , that projects therefrom and receives one end of a rope, cord, or other like means, J, that passes over a pulley, K, supported in straps  $k$  upon the bar G. A knot or other like stop is secured or formed in the cord J, to prevent the latter from passing over the pulley K when the apparatus is being placed in position.

L designates a coiled spring attached to the lower end of the rope or cord J, which connects said rope with a second cord or rope that extends and is secured to a suitable object on the ground. The purpose of the spring L is to prevent the withdrawal of the rod I from engagement with a building by accidental displacement of the ladder.

I will now proceed to describe the means for holding the stage-plank in position.

M designates a metallic bar having its inner end bifurcated, the arms or branches  $m$   $m$  of which extend laterally or away from each other, and are provided at their free ends with upwardly-projecting hooks  $m'$ , which engage with the rungs of the ladder. The opposite end of the bracket-bar M is provided with a downwardly-projecting hook,  $m^2$ , which rests upon the shoulder of the workman or operator who carries or adjusts the bracket and the plank N supported thereby. The outer end of the bracket is further provided with an upwardly-bent arm,  $m^3$ , the end of which is provided with a hook,  $m^4$ , to receive one of the links of a chain, O, which passes to an eye,  $p$ , formed at or near the middle of a rod, P. The ends of the rod are formed into hooks  $p'$ , which engage the rungs of the ladder for the purpose of holding the bracket in position and against displacement.

Q designates a rod that passes over the plank and above the bracket, and the downwardly bent ends of the rod are connected to the bracket at the sides of the plank for the purpose of holding the plank in position.

The operation of my invention will be understood without further description, taken in connection with the drawings.

At or near the lower end of the vertically-movable tube B, I provide a sleeve or collar, R, that is held on the said rod by means of a binding-screw,  $r$ , which it carries, and this sleeve or collar is provided with a curved hook,  $R'$ , that is adapted to engage one of the rungs of the ladder to hold or retain the rod and tube on the ladder to prevent them from slipping.

Having thus described my invention, I claim—

1. In a combined ladder-holder and scaffold-bracket, the combination, with a vertically-adjustable support and a sleeve carried thereby and having means to be connected with a ladder, of a rod, I, having a threaded end to engage with the cornice of a building, substantially as described. 70

2. In a combined ladder-holder and scaffold-bracket, a tube, a bar supported thereon and having hooked ends, and a vertically-adjustable sleeve on the tube, in combination with a horizontally-adjustable bar, G, and a sleeve rigidly held upon the tube, a hollow rod, H, secured at its upper end in a cross-head,  $G'$ , of the bar G, and an adjustable rod, I, having a pointed end, substantially as described. 75 80

3. In a combined ladder-holder and scaffold-bracket, a vertically-adjustable rod, I, having a sharpened and threaded end and a handle at its lower end, in combination with a tube, H, a cross-head,  $G'$ , an adjustable rod, G, a sleeve, F, and a tube, B, substantially as described. 85 90

4. In a combined ladder-holder and scaffold-bracket, a vertical tube carrying a sleeve and a rod fitted in the tube, in combination with a sleeve, F, on the tube, a bar, G, held thereon and provided at its outer end with a hollow cross-head,  $G'$ , a tube, H, adjustable bar I, and rope J, having springs L, substantially as described. 95

5. In a combined ladder-holder and scaffold-bracket, a bracket-bar, M, having hooked inner ends,  $m$ , downwardly-projecting arm  $m^2$ , adapted to be connected to a ladder, upwardly-projecting arm  $m^3$ , having the hooks, and a chain intermediate of the arm  $m^3$ , and a ladder to which the device is applied, substantially as described. 100 105

6. The combination of a vertical bar detachably connected to a ladder and carrying a lateral arm, and a rod supported by the arm and adapted to be inserted in the cornice of a building, substantially as described, for the purpose set forth. 110

7. The combination of a vertical bar detachably secured to a ladder, a lateral arm carried by the bar and having a tubular case and a pointed rod loosely fitted in the tubular case, and means, substantially as described, for retaining said rod in engagement with a cornice or other part of a building when desired, substantially as described. 115 120

8. In a ladder and scaffold-bracket, the combination of a vertical bar, a vertically-adjustable arm supported on the bar and carrying a tubular case, and a movable pointed rod inclosed within the case, substantially as described. 125

9. The combination, with a ladder, of a vertical bar carrying a pointed rod, the sleeve at its upper end having the hooked arms, and a collar, R, having a binding-screw and a hooked arm, substantially as described. 130

10. In a ladder and scaffold-bracket, the combination of a vertical rod supported on a



ladder, a lateral arm carried by the vertical rod and having a sheave, a longitudinally-movable rod, I, supported on the lateral arm and adapted to be connected to a building, 5 and a cord or rope passing over the sheave and connected to the rod I, substantially as described, for the purpose set forth.

11. In a scaffold-bracket, the combination of a horizontal bar, M, detachably connected 10 to a ladder, a horizontal rod arranged above the bar M, to provide an intermediate space, and a chain connected to the free end of the bar M and adapted to be connected with a ladder, substantially as described, for the purpose set forth. 15

12. In a scaffold-bracket, the combination of a horizontal bar, M, having hooks at one end, a horizontal rod, Q, connected to the bar and arranged above the same to form an intermediate space, a bracket, P, having the hooks, 20 and connections intermediate with the bracket and the outer end of the bar M, substantially as described, for the purpose set forth.

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

JAMES A. DUDLEY.

Witnesses:

A. S. SPOONER,  
M. B. KEITH.