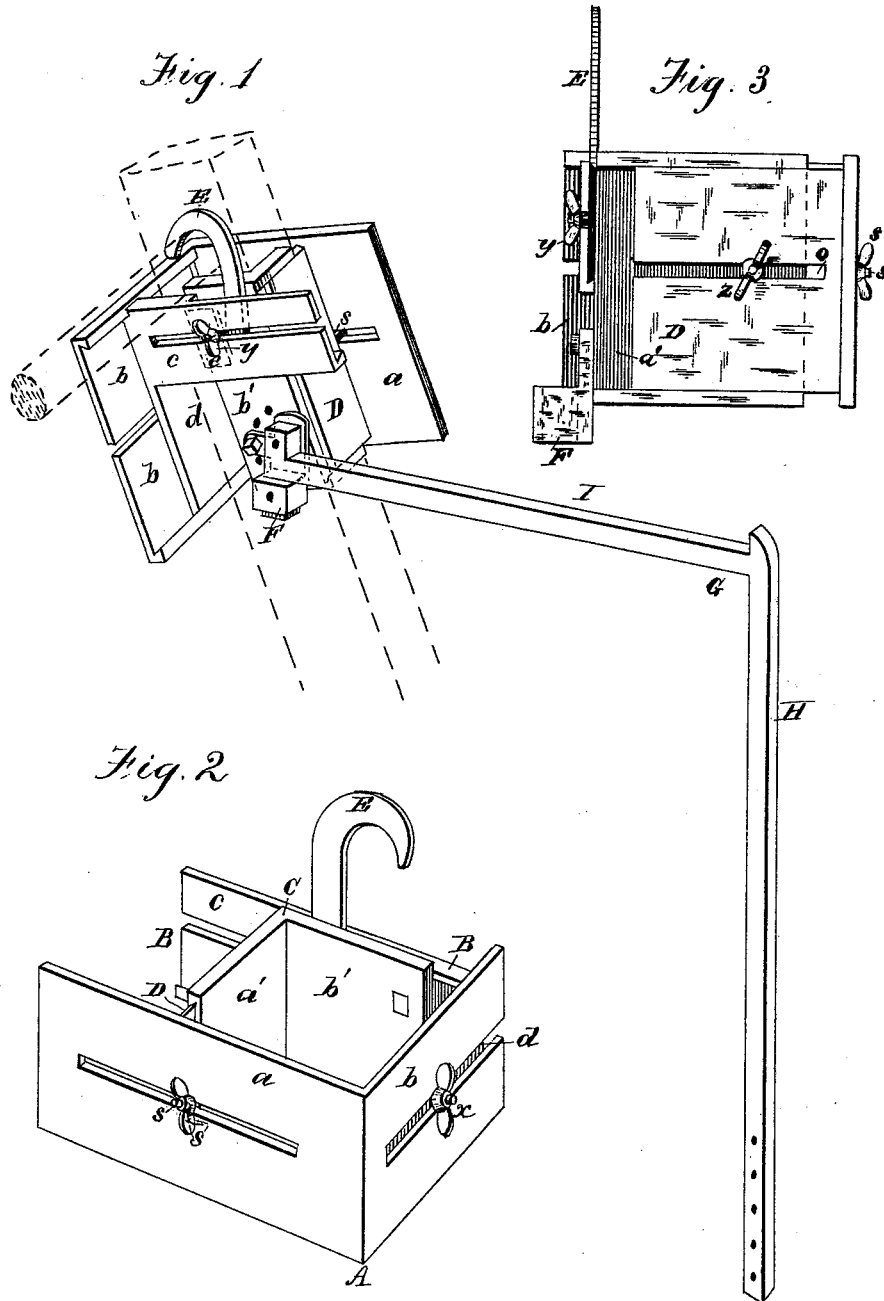


W. BAILIS.
Ladder-Scaffold Support.

No. 218,154.

Patented Aug. 5, 1879.



Witnesses
H. Robinson
J. M. Bent Stewart.

Inventor
William Bailis

UNITED STATES PATENT OFFICE.

WILLIAM BAILIS, OF PRINCETON, NEW JERSEY, ASSIGNOR OF ONE-HALF HIS RIGHT TO HUGH M. BROWNE, OF SAME PLACE.

IMPROVEMENT IN LADDER-SCAFFOLD SUPPORTS.

Specification forming part of Letters Patent No. **218,154**, dated August 5, 1879; application filed June 25, 1879.

To all whom it may concern:

Be it known that I, WILLIAM BAILIS, of Princeton, in the county of Mercer, State of New Jersey, have invented a new and useful Improvement in Adjustable Supports for Ladder-Scaffolds, of which the following is a full, clear, and exact description.

My invention relates to clamps and brackets for supporting scaffolding.

Heretofore the disadvantages attending the use of such devices have been, first, the want of one so constructed that it was capable of an adjustment equally rapid and secure; and, secondly, that they have not been constructed of such size as to render their portability easy and convenient.

My invention has for its object the facilitation and security of the adjustment of such supports; and it consists in the peculiar construction and combination of parts hereinafter more specifically described, and pointed out in the claims.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a perspective view of my clamping device, (shown as applied to a ladder-standard,) and having the supporting-bracket attached. Fig. 2 is a view in perspective, showing the relation between the three sides of the clamping-box; and Fig. 3 is a front view of the same.

A, Fig. 2, represents the main side of my clamping-box, and B C the two sliding sides connected therewith. The main side A has two wings, *a b*, each provided with a longitudinal slot, and the wing *b* having on the upper and lower edges of its inner side triangular projections forming a dovetailed way to receive the side B. This latter side is also composed of two wings, *c d*, wing *c* having a longitudinal groove, as shown. The side C is also made in two wings, *a' b'*—wing *a'*, like wing *b*, having on its outside projections to form guideways for the sliding piece D. This sliding piece D is provided with a longitudinal slot, *o*, and projecting stationary screw *s*, to receive a wing-nut, *s'*.

Wing *b'* of the side C has formed on its outer side a broad supporting-lug, *e*, (shown in dotted lines,) whose upper and lower edges

are inwardly beveled, so that it can slide into the dovetailed way on the inner side of wing *c*. Pivoted to the outside of said wing *b'* are also the hook E and a swinging box-eye, F, both of the latter being made radially adjustable, for the purpose hereinafter set forth. Said box-eye can be secured in its adjustment in any position by a pin passing through a projecting lip on the extended back of said box-eye, and into any one of the circular series of holes in the wing *b'*. G is a right-angled bracket, having the two arms H I, the latter having a T-shaped outer end, and both arms having perforations in their outer ends, as shown, and for the purpose hereinafter stated.

The operation of my device is as follows: It is obvious that the construction of my clamping-support necessitates the use of four of them in supporting one scaffold, and, as will be readily seen, either one or two ladders may be used, in which latter case two clamps are placed, one above the other, on the outside standard of each ladder, and at a distance apart equal to the distance between the rounds.

To fix the clamping-box on the standard, first remove and loosen the wing-nuts *s' x*, respectively, and then separate the two parts thus loosened, clamp said parts of the box around the ladder-standard immediately below the round, and secure them by the wing-nuts just referred to. The pivoted hook is now hooked over the round next above it, thus securing the box against any tendency to slide down the standard. In addition to this security the box is kept from such sliding by the difference between the direction of the slide and the direction of the strain or weight on the box, the latter forming always a more or less acute angle with the former.

To adjust the box to various thicknesses of ladder-standards, loosen the wing-nuts *x y z*, and the sliding sides of the clamping-box, moving one upon the other in the guideways formed thereon, can be adjusted upon each other at any point in their respective slots by means of the screws and wing-nuts shown. The lower projection on the end of the arm I of the bracket G is then inserted in the swinging box-eye F, and may or may not be fastened therein by a pin passing through the perfora-

tions shown, the weight of the scaffolding being sufficient to keep said arm in place. The lower end of arm H is then placed in the swinging box-eye of the lower clamping-box, and secured therein with a pin. Arm I thus forms a support for the scaffolding, the latter being kept from lateral displacement by the shoulder on the rear end of said arm I.

The pivoted box-eye is made radially adjustable, so that the bracket-arms can always form a level bearing for the scaffolding at whatever inclination the ladder may be placed. Should any adjustment of the scaffold-support necessitate a fastening of the lower end of arm H at any point below the box-eye, said arm may pass to a limited distance through said eye, and be fastened therein by a pin passing through the holes in the box-eye and the arm.

It is obvious from the construction of my device, as herein described, that it is capable of adjustment to either side of a ladder in the manner set forth, and that the scaffold may accordingly be laid next to or away from the wall of the building.

In adjusting my device to the inner side of a ladder, the same means will apply as in the front adjustment, except that the bracket is reversed, and arm H is fastened in the upper box-eye, and one of the projections on the end of arm I is fastened in the lower box eye, and the scaffolding placed on arm I on the reverse side, and held from lateral displacement by arm H.

It is also obvious that the rapidity and security of the adjustment of my device, coupled with the size, make it a convenient, secure, and valuable scaffold-support for use in building, painting, &c.

My clamping-support is constructed in right-and-left pairs, so that the hook E, swinging box-eye F, and supporting-lug *c* may be always next to the rounds of the ladder when the device is applied to opposite standards of the same or different ladders.

Having thus fully described the construction and operation of my device, what I claim as of my invention, and desire to secure by Letters Patent of the United States, is—

1. The improved supporting device herein described, consisting of the sides A B C and the sliding piece D, said sides being slotted and grooved, and arranged to slide one upon the other, substantially in the manner and for the purpose set forth, and held secure in adjustment by the screws and wing-nuts, as shown and described.

2. The combination, with the side A, of the clamping-box having the wings *a b*, grooved and slotted, as shown, the side B, made to slide into or upon said side A, the side C, having formed on its outer side the supporting-lug *c*, which forms a bearing for side B, hook E, and swinging box-eye F, all constructed and arranged to operate substantially in the manner and for the purpose set forth.

3. The side C of a supporting-box, formed with a side lug *c*, and having pivoted thereto the hook E and swinging box-eye F, the latter being capable of radial adjustment, in combination with a sliding piece, D, having stationary screw *s* and slot *o*, the sides A B, and supporting-bracket G, substantially as shown and described.

4. The supporting-bracket G, having the arm H, perforated as shown, and the arm I, T-shaped at its outer end, and constructed to operate in the manner described, in combination with the swinging box-eye F and the hook E, substantially as shown and set forth.

In testimony that I claim the foregoing as of my own invention I have hereunto set my hand and seal this 20th day of June, A. D. 1879.

WILLIAM BAILIS. [L. s.]

Witnesses:

H. L. ROBINSON,
T. McCANTS STEWART.