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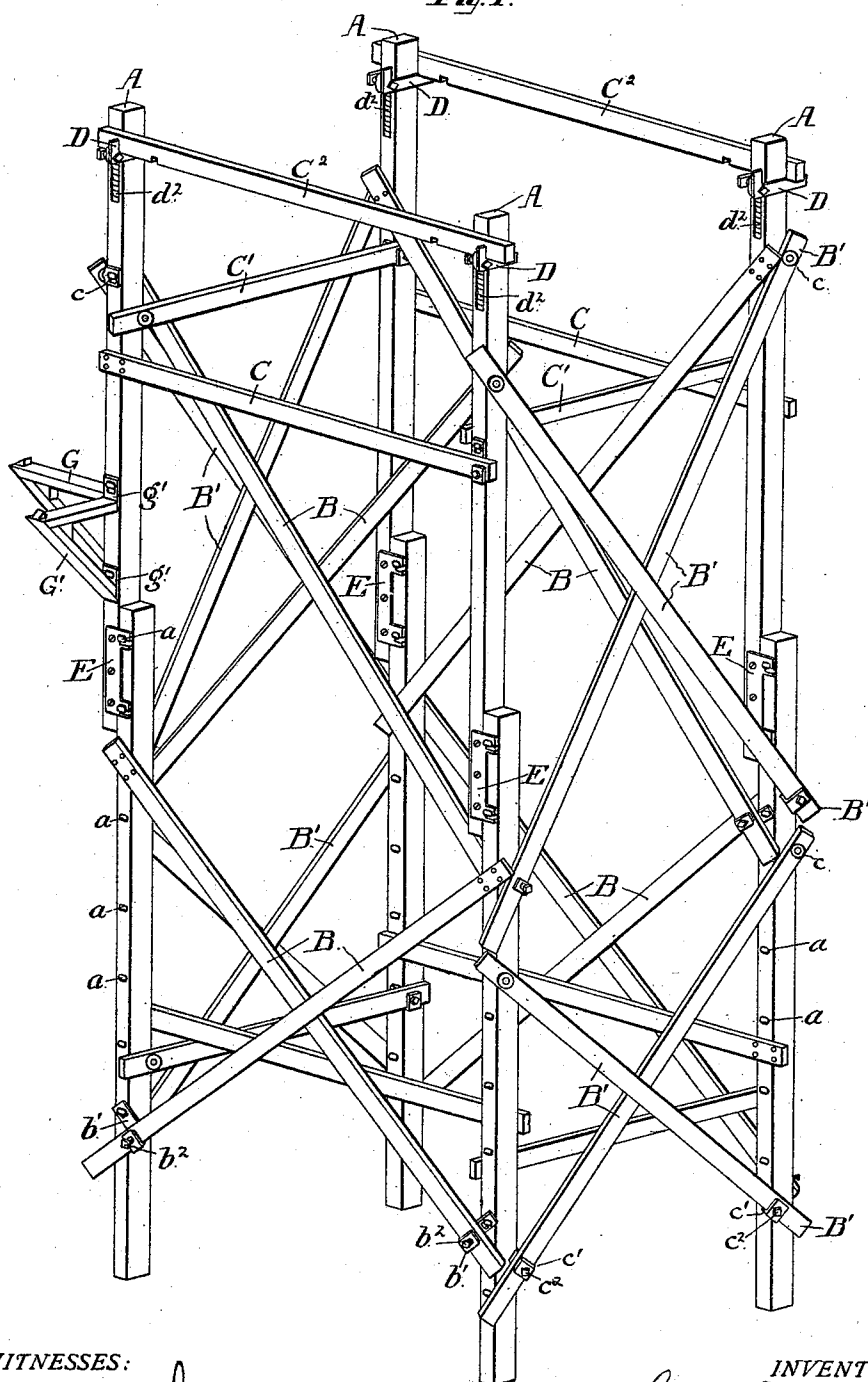
G. S. MACLAURIN.
PORTABLE SCAFFOLD.

2 Sheets—Sheet 1.

No. 417,678.

Patented Dec. 17, 1889.

Fig. 1.



WITNESSES:

WITNESSES:
John J. [Signature]
Geo. R. [Signature]

INVENTOR

INVENTOR
George S. MacLaurin,
by his attorney,
Horace Pettit.

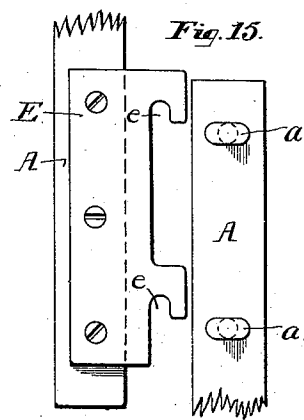
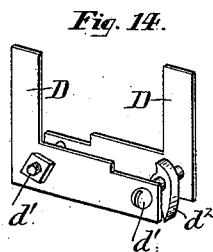
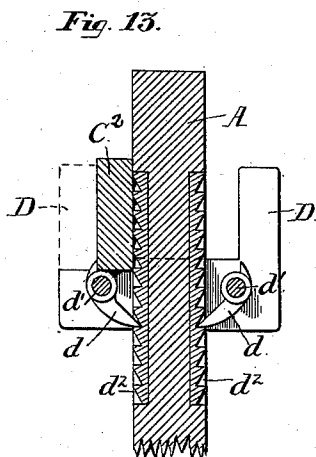
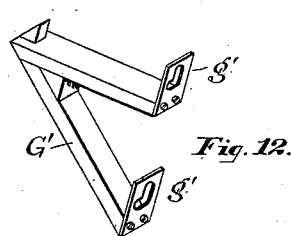
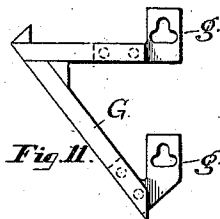
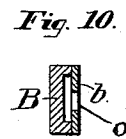
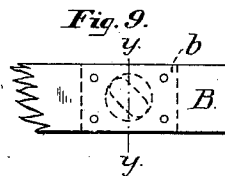
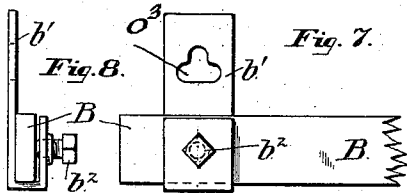
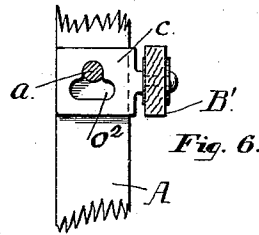
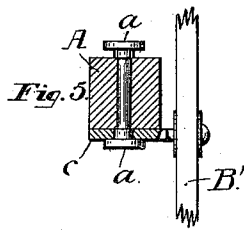
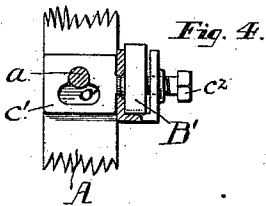
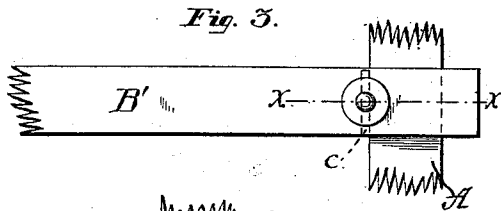
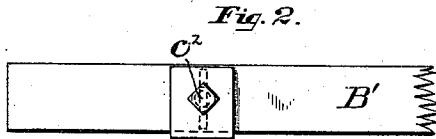
(No Model.)

2 Sheets—Sheet 2.

G. S. MACLAURIN.
PORTABLE SCAFFOLD.

No. 417,678.

Patented Dec. 17, 1889.



WITNESSES:

James J. [Signature]
Geo. A. [Signature]

INVENTOR

George S. MacLaurin,
by his attorney,
Horace Pettit.

UNITED STATES PATENT OFFICE.

GEORGE S. MACLAURIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JOHN H. CRANKSHAW, OF SAME PLACE.

PORTABLE SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 417,678, dated December 17, 1889.

Application filed May 16, 1889. Serial No. 311,055. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. MACLAURIN, of the city of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Portable Scaffolds; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

My invention has relation to portable adjustable scaffolds; and it consists in the devices for securing and adjusting the braces to the uprights at any desired height or position, in adjustably securing the ledge-boards to the uprights to any desired height, in splicing the uprights, and also in securing the brackets for supporting the foot-planks to the uprights, all as hereinafter substantially set forth and described.

The object of my invention is to provide a safe and secure scaffold, and one that can be readily adjusted to any desired height.

In accomplishing the object of my invention I employ, in combination with the uprights, braces, and brackets, locking-plates adjustable on and fixed to the braces at their respective ends, adapted to engage upon fixed pins or spurs secured at desired intervals to the uprights. As it is desirable to affix the spurs or pins to but two of the opposite sides of the uprights, principally for convenience in handling the uprights, the construction and design of the securing-plates on the respective ends of the braces are necessarily different in the side braces from those in the front and rear braces.

I will now describe my invention, so that others skilled in the art to which it appertains may make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which similar letters of reference refer to similar parts throughout.

Figure 1 is a perspective view of my scaffold erected and in position, built so as to show all sides and the various parts in their several connections. Figs. 2 and 3 show a broken cross beam or brace, with their respective securing devices secured to their respective ends, the securing device shown in Fig. 2 being adjustable on the brace, and that

in Fig. 3 being fixed to the brace, the adjustable device shown in Fig. 2 being employed when the locking-pins on the uprights are on the surface of the upright, which is at right angles to the face of the upright on a plane with the brace. Fig. 4 is an end and partially cross-sectional view of the adjustable securing device shown in Fig. 2. Fig. 5 is a cross-sectional view of the fixed end-securing device shown in Fig. 3, on the line xx of Fig. 3. Fig. 6 shows the end-securing device fixed to the brace, as shown in Fig. 3, showing in detail the method of securing the same to the upright. Fig. 7 is an adjustable brace-end-securing device employed where the locking-pins are on the surface of the uprights in immediate contact with which the braces come, as contradistinguished from the adjustable end-securing devices shown in Figs. 2 and 4. Fig. 8 is an end view of Fig. 7. Fig. 9 is the plate-securing device secured to the other extremity of the brace from that on which the adjustable device in Fig. 7 is employed. Fig. 10 is a cross-sectional view on the line yy of the securing-plate and brace-end shown in Fig. 9. Fig. 11 is an adjustable bracket for supporting a foot-plank. Fig. 12 is a perspective view of the bracket shown in Fig. 11, having its locking-plates at right angles to the line of the locking-plate represented in Fig. 11. Fig. 13 is the adjustable ledge-board-securing bracket in cross-section, showing the securing-ratchets on the upright and the movable pawl attached to the bracket. Fig. 14 is a perspective view of the ledge-board-securing bracket shown in Fig. 13 detached from the upright. Fig. 15 shows the splicing device for splicing the uprights.

A A are the uprights of the scaffold, which are secured in position by the oblique braces B and B' and the cross horizontal braces CC'. All these braces are secured adjustably to the uprights by means of the locking-plates attached to the ends of the braces interlocking into the pins or spurs provided on the uprights.

a represents the pins or spurs secured to the uprights A, preferably on two opposite sides at desired intervals. These spurs a have preferably elliptical-shaped heads adapted to interlock with the securing-plates attached

to the cross-braces and are secured to the uprights A by riveting or otherwise. Affixed to one end of the brace B is the securing-plate *b*, having an oblong or elliptical opening 5 therein at an oblique angle to the line of the brace, which is adapted to engage with the horizontal head of the spur or pin *a*, secured to the upright A. An opening or recess *o* is provided in the brace B for the head of the 10 spur or pin *a* under the plate *b*. At the opposite end of the brace B is an adjustable plate *b'*, adapted to engage on the spur *a* and interlock therewith, and adjustable on the brace B to any desired point by means of the winged 15 nut or screw *b''*, to secure the brace B firmly to the upright A.

It will here be noticed, as before stated, that as the spurs are preferably only on two of the opposite sides of the uprights A the 20 securing-plates adapted to engage with the spurs *a*, provided on the ends of the side braces B, must necessarily have to be at right angles to the line of its brace.

At one end of the brace B' is pivotally secured the plate *c* at about a right angle to the 25 plane of the brace adapted to interlock with the spur *a*, as shown in Figs. 5 and 6. At the opposite end of the brace B' is adjustably and pivotally secured the plate *c'*, as shown in Fig. 4, adapted to interlock with the spur 30 *a*, and adjustable on the brace B' by means of the winged nut or thumb-screw *c''*, the plate *c'* being pivotally adjusted to that portion which incloses the brace B', and which is 35 bound to the brace B' by the thumb-screw *c''*.

o is a space or recess provided in the braces B beneath the plate *b* to accommodate the head of the spur *a*.

o' is an opening in the plate *c'*.

40 *o''* is an opening in the plate *c*, and *o'''* is an opening in the plate *b'* to allow of the entrance of the head of the spur *a* when the plates and spurs are being fitted or locked together.

D represents the ledge-board-supporting 45 brackets, secured adjustably on the uprights A, adapted to be clamped thereto by tightening the nuts on the bolts *d'*, as shown in Figs. 13 and 14 in detail, the turning of which 50 draws together the two L-shaped brackets shown in Fig. 14, and binds tightly upon the opposite sides of the upright A and prevents the bracket and the ledge-board C², which it 55 supports, from slipping on the upright A. As additional precaution, however, at about the points where the ledge-boards are usually secured on the uprights A, I provide the ratchets *d''*, countersunk in the uprights A, into 60 which the pawls *d*, provided on the brackets D, are adapted to engage.

E represents the upright splicing-plates, secured to the lower end of the upright desired 65 to be added to the upright A to secure additional height. The hooks *e* of the plate E engage upon the spurs *a*, provided on the upper end of the upright A, and thus firmly secures the extension to the upright A and pre-

vents the same from slipping longitudinally or laterally.

G is a bracket for supporting a foot-plank, having its securing-plates *g g* parallel with 70 the line of the bracket, and G' is a similar bracket, but having its securing-plates *g' g'* at right angles to the line of the bracket. It will be seen that these two brackets are adapted to be adjusted to different sides of 75 the uprights.

When it is desired to erect a scaffold, as shown in Fig. 1, or to erect a portion of the same, as against a wall, the uprights, having been temporarily supported, are then 80 braced by adjusting to each the respective ends of the braces B or B' by engaging the locking-plates on the respective ends of the braces with the spurs *a*, attached to the uprights, the desired distance be- 85 tween the plates on the respective ends being regulated by means of the winged nut or screw on the adjustable plate at one end of each brace. The scaffold is in this manner properly, readily, and firmly secured and 90 erected to any desired height by means of the splicing devices hereinbefore described. The ledge-boards may be secured at any desired position, and the brackets for supporting the foot-planks placed in position with- 95 out loss of time, and all without employment of hammer or nail.

The locking-plates are preferably made with an orifice in the manner shown in the drawings, so as, after admitting the head of the 100 spur *a*, the plate may drop slightly down back of the head of the spur, and thereby be secured in position. The length of the shank of the spur *a*, between the head and the face of the upright A, is equal to or slightly 105 greater than the thickness of the end-securing plate.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a scaffold, in combination with the 110 uprights and the braces, the locking-plates, fixed and adjustable, and the fixed spurs, substantially as hereinbefore set forth and described.

2. In a scaffold, locking-plates, one fixed and one adjustable, at or near the respective 115 ends of each respective brace, in combination with fixed spurs, and adapted to engage thereon and therewith for securing the respective ends of the braces to the uprights in the construction of the scaffold, substantially as hereinbefore set forth and described. 120

3. In combination with the uprights and cross pieces or braces of a scaffold, the spurs 125 *a*, fixed to the uprights A, the fixed locking-plates secured to one end of the braces, and the adjustable locking-plates secured at or near the other end of the said braces, substantially as hereinbefore set forth and de- 130 scribed.

4. In a scaffold, the adjustable ledge-board-

securing bracket D, the binding-clamp d' , and the pawl d , in combination with the ratchet d^2 , affixed to the upright, substantially as hereinbefore set forth and described.

5 5. In a scaffold, the hooked splicing-plates E, secured at one end of the upright to be spliced, one plate on each side thereof opposite each other, in combination with the fixed
10 spurs a , affixed to the end of the other upright, substantially as hereinbefore set forth and described.

6. In a scaffold, the uprights A, spurs a , provided thereon, braces B B' C C', and fixed

and adjustable locking-plates provided on the braces, adapted to interlock with the spurs a ,
15 each brace being provided with a locking-plate at or near each end thereof, one of the said locking-plates being adjustable thereon,
substantially as hereinbefore set forth and described.

In witness whereof I have hereunto set my
hand this 14th day of May, A. D. 1889.

GEORGE S. MACLAURIN.

Witnesses:

HORACE PETTIT,

REESE M. FLEISCHMAN.