(No Model.)

C. D. BOWYER & W. H. CASPERSON.

PAINTER'S STAGE.

No. 382,252. Patented May 1, 1888.

Fig. 1.

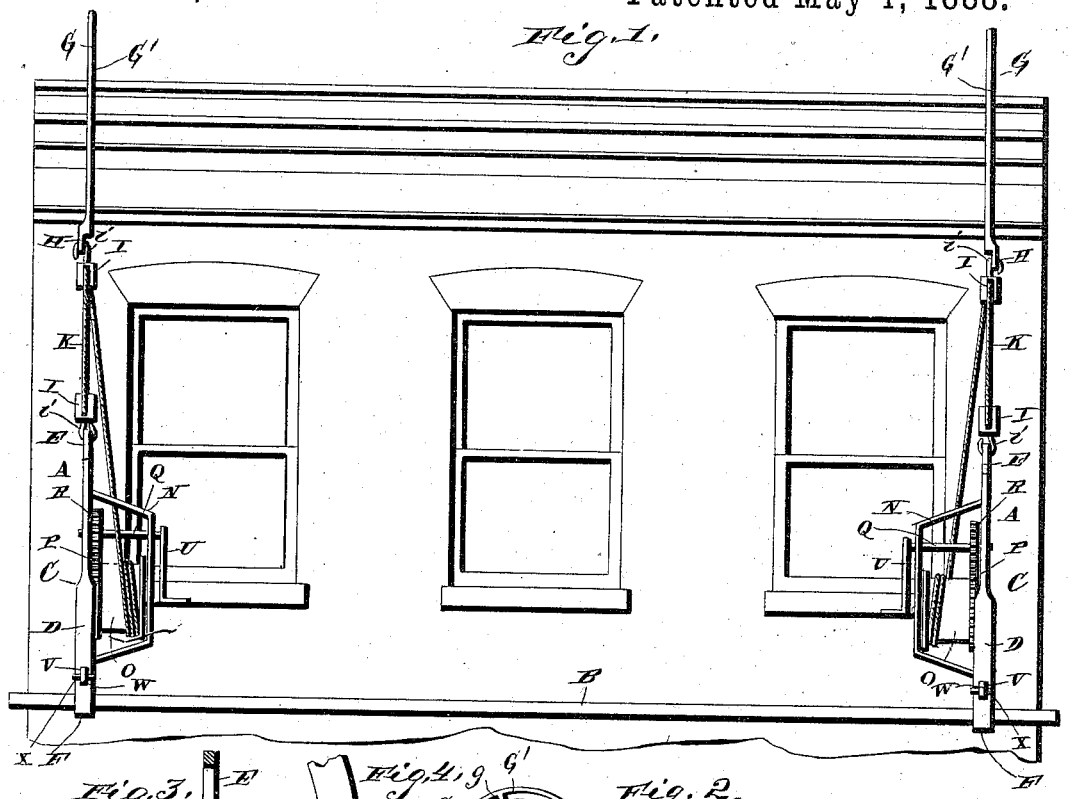

Fig. 3.

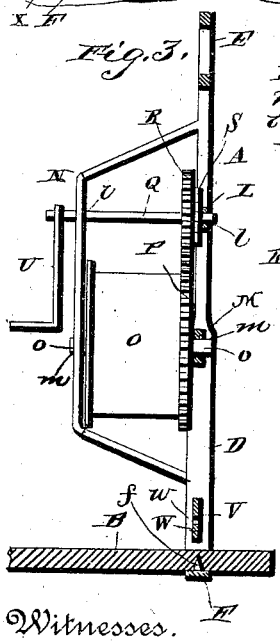

Fig. 4, 9.

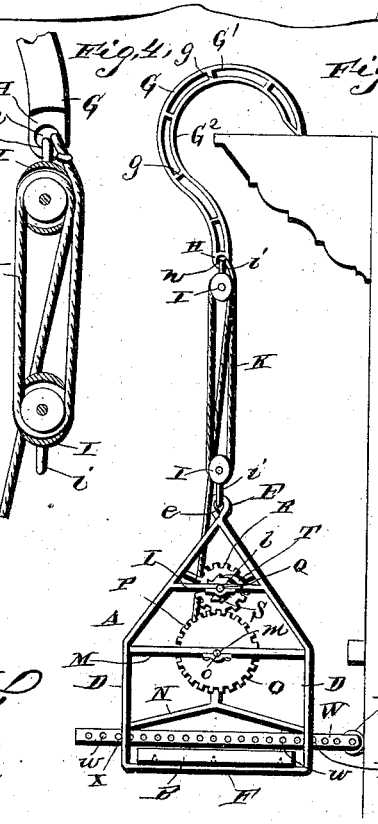

Fig. 2.

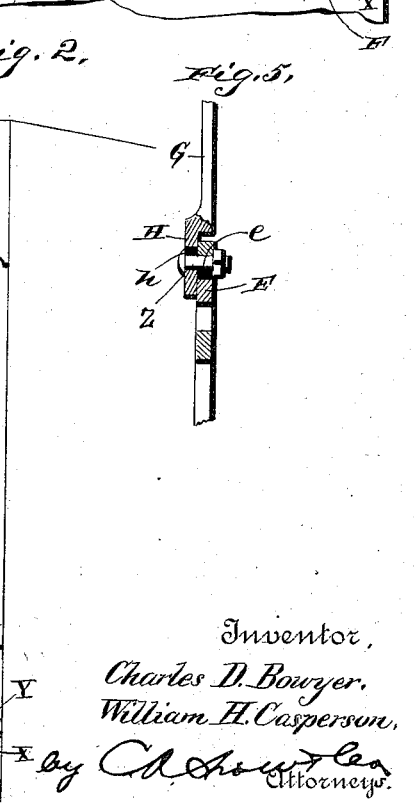

Fig. 5.

Witnesses.

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PAINTER'S STAGE.

SPECIFICATION forming part of Letters Patent No. 382,252, dated May 1, 1888.

Application filed December 14, 1887. Serial No. 257,896. (No model.)

To all whom it may concern:

Be it known that we, CHARLES D. BOWYER and WILLIAM H. CASPERSON, citizens of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented new and useful Improvements in Painters' Stages, of which the following is a specification.

Our invention relates to improvements in painters' stages; and it has for its objects to provide a simple, strong, and effective device which may be readily applied in the operative position to a house.

We desire, further, to provide a stage with improved means whereby the person thereon may raise and lower the same, thus obviating the necessity of a person on the ground to operate the stage.

It is our object, further, to provide improved means for maintaining the stage at the proper or desired distance from the wall of the house.

With these objects in view the invention consists in a certain novel construction and arrangement of parts, fully set forth hereinafter in connection with the accompanying drawings, wherein—

Figure 1 is a front view of a stage attached in the operative position to a house. Fig. 2 is a side view of the same. Fig. 3 is a vertical central section of one of the supports. Fig. 4 is a detail view of the connection between the hook and the frame of the stage. Fig. 5 is a similar view with the hook and frame connected, so as to form a stationary stage.

Referring by letter to the drawings, A designates the support, one of which is arranged at each end of the plank B, and the said support comprises the frame C and the hook G. The frame consists of the side bars, D D, which converge at their upper ends and are connected to a disk, E, and the horizontal supporting-bar F, which is provided on its upper side with spurs *f f*, adapted to engage in the plank. The hook G is double, and consists of the outer bar, G′, and the inner bar, G², which are attached at their lower ends to a disk, H, and converge at their free ends to a point. Bracing-webs *g* are arranged between the bars G′ and G² at intervals to hold them at the proper distance apart. The disk H is provided with a central aperture, *h*, and the disk E is provided with a similar central aperture, *e*.

I I represent pulley-blocks, which are attached, respectively, to the disks E and H by means of the hooks *i i*, which are engaged in the apertures *h* and *e*, and K represents a rope which runs through the said blocks. A horizontal brace, L, is arranged between the converging portions of the side bars, D D, and it is provided with a bearing, *l*. A similar brace, M, is arranged between the side bars a short distance below the brace L, and it is also provided at its center with a bearing, *m*.

N represents a bracket which is attached to the frame C, and it is provided with bearings *l* and *m*, which align, respectively, with the bearings *l* and *m* in the frame.

O represents a drum, provided with trunnions *o o*, which are mounted in the bearings *m m*, and the drum is also provided with a peripheral series of gear-teeth, P. A shaft, Q, is mounted in the bearings *l l*, and it carries a gear-wheel, R, which engages with the teeth on the drum, whereby, when the gear-wheel is rotated, the drum is similarly operated. A ratchet-wheel, S, is secured rigidly to the shaft or the gear-wheel, and it is engaged by the pawl T, which is mounted on the brace L or any other suitable portion of the frame. The opposite end of the shaft Q is provided with a crank, U, whereby the gear-wheel may be rotated. The end of the rope K is attached to the drum, and therefore the frame C may be raised or lowered at will by winding or unwinding the rope. The pawl T will hold the frame at the desired elevation.

The operation of this device will be readily understood from the foregoing description. The stage is suspended from the cornice of a building by engaging the hooks G G therein, and therefore the device may be used in positions where it is impossible for a support from the ground to be erected; also, it is not always convenient to use stage-supporting brackets which must be attached to windows, as it may happen that the windows are not in the desired positions. The hooks G may, however, be engaged over the sills of windows where it is preferred.

V V represent aligned apertures in the side

bars, D D, and an adjustable guide-arm, W, is arranged in the said apertures and extends inward toward the house to act as a fender. The arm W is provided with a series of perforations, *w w*, which are adapted to receive pins X X. These pins are inserted in the perforations on the outer sides of the bars D D, so as to secure the adjustable arm in the desired position. The inner or contact end of the arm is provided with a small rubber roller, Y, which is adapted to bear against the wall of the house and roll on the same when the stage is raised or lowered. The stage is thus guided in its vertical motion and prevented from swinging. The arm W passes over the end of the plank B, close to the upper surface thereof, and therefore prevents the same from being lifted from the spurs *f*, and thus detached from the supports. The arms W, therefore, serve two purposes—namely, that of an adjustable guide-arm and a retaining-bar for the stage-plank.

The blocks and the other portions of the hoisting device may, if desired, be removed, and the bolt Z may be engaged in the apertures *e* and *h* in the disks, as shown in Fig. 5, to render the stage stationary. It will be found of advantage, however, to be able to vary the elevation of the stage at will.

The hook G is made in the peculiar form described for the reason that it may thus be made much lighter than a solid hook for the same strength. The outer and inner bars mutually brace and support each other for the reason that they are rigidly connected at intervals by the bracing-webs.

The absence of complicated construction in this stage renders it cheap to manufacture, easily operated, not liable to get out of order, and light, thereby enabling it to be readily transported. There is no erection of scaffolding or heavy frame-work in connection therewith. It is arranged in the operative position simply by engaging the hooks in the cornice of the building and drawing the plank-supporting frames up by means of the hoisting devices.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. In a stage, the combination of the hooks G G, the frames C C, depending from the hooks and having the horizontal supporting-bars F, the plank B, resting at its ends on the bars F, and the arms W W, attached to the frames and passing over the plank, substantially as and for the purpose specified.

2. In a stage, the combination, with the hooks, of the depending frames C, having supporting-bars F F, provided with spurs *f f* on their upper sides, the plank B, resting at its ends on the said bars and engaging the spurs, and the removable arms W W, attached to the frame and passing over the plank adjacent to the upper surface thereof, substantially as specified.

3. In a stage, the combination, with the hooks G G, of the frames C C, depending therefrom and having the side bars, D D, provided with aligned apertures V V, and the horizontal bars F F, the plank B, attached to the frame, the guide-arms W, arranged in the apertures V V and having the perforations *w w*, and the pins X X, engaging the perforations and bearing against the bars D D, substantially as specified.

4. In a stage, the combination of the hooks G, comprising the outer and inner bars, G′ and G², converging to a point at their upper ends, the bracing-webs arranged at intervals between the said bars, and the apertured disk H, attached to the lower ends of the bars, the frames C C, comprising the converging side bars, D D, connected at their lower ends by the horizontal bars F, and the apertured disk E at the upper ends of the side bars, the plank B, resting at its ends on the horizontal bars F, the pulleys I I, having hooks *i i*, which are engaged in the apertured disks, the ropes K, passing through the pulleys, and the drums mounted on the frames C and adapted to wind or unwind the ropes, substantially as and for the purpose specified.

5. In a stage, the combination of the hooks G G, having pulleys I attached to their lower ends, the depending frames C C, having pulleys I attached to their upper ends, the inward-extending guide-arms W, attached to the frames and having rollers on their ends, and the hoisting devices mounted on the frames C and comprising the drums O, having peripheral series of gear-teeth, the gear-wheels R, meshing with the teeth on the drums and having a crank, U, attached thereto, the ratchet-wheels carried by the gear-wheels, the pawls engaging in the ratchet-wheels, and the ropes K, passing through the pulleys I I and attached at their lower ends to the said drums, substantially as specified.

6. In a stage, the combination, with the supporting-hooks having pulleys attached thereto and the plank-supporting frames having pulleys attached thereto, of the drums mounted on the said frames, the gear-wheels R, meshing with gear-teeth on the flanges of the drums, the ratchet-wheels carried by the said gear-wheels, the pawls mounted on the frames and engaging the said ratchet-wheels, the crank-arms connected to the gear-wheels, and the ropes K, attached to the drum and passing around the said pulleys, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

CHARLES D. BOWYER.
WILLIAM H. CASPERSON.

Witnesses:
ROBT. S. TURTON,
CHAS. L. REEVES.