No. 841,676. PATENTED JAN. 22, 1907.

B. F. EARL.

WINDOW STAGE.

APPLICATION FILED DEC. 15, 1905.

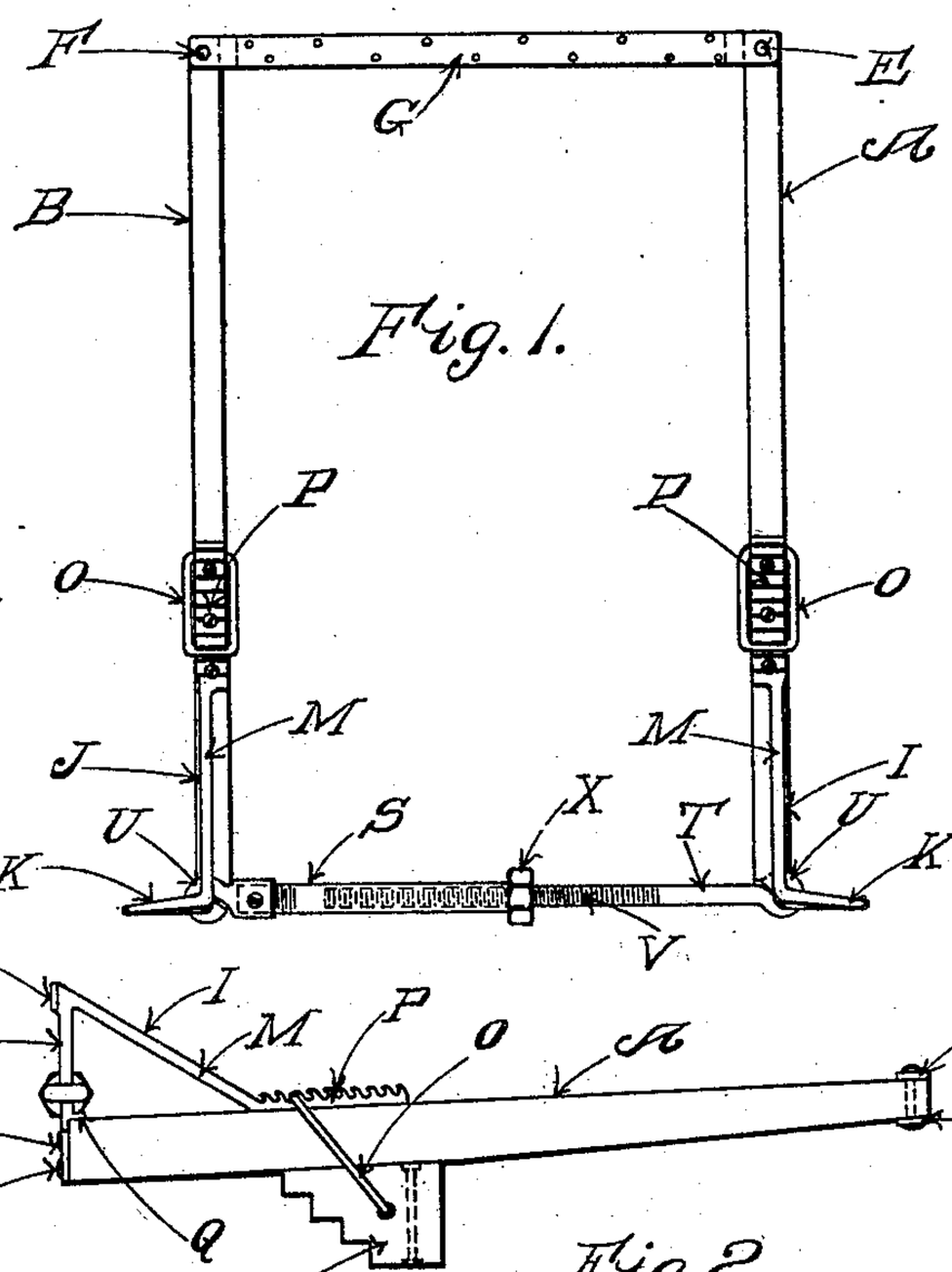


Fig. 1.




Fig. 2.

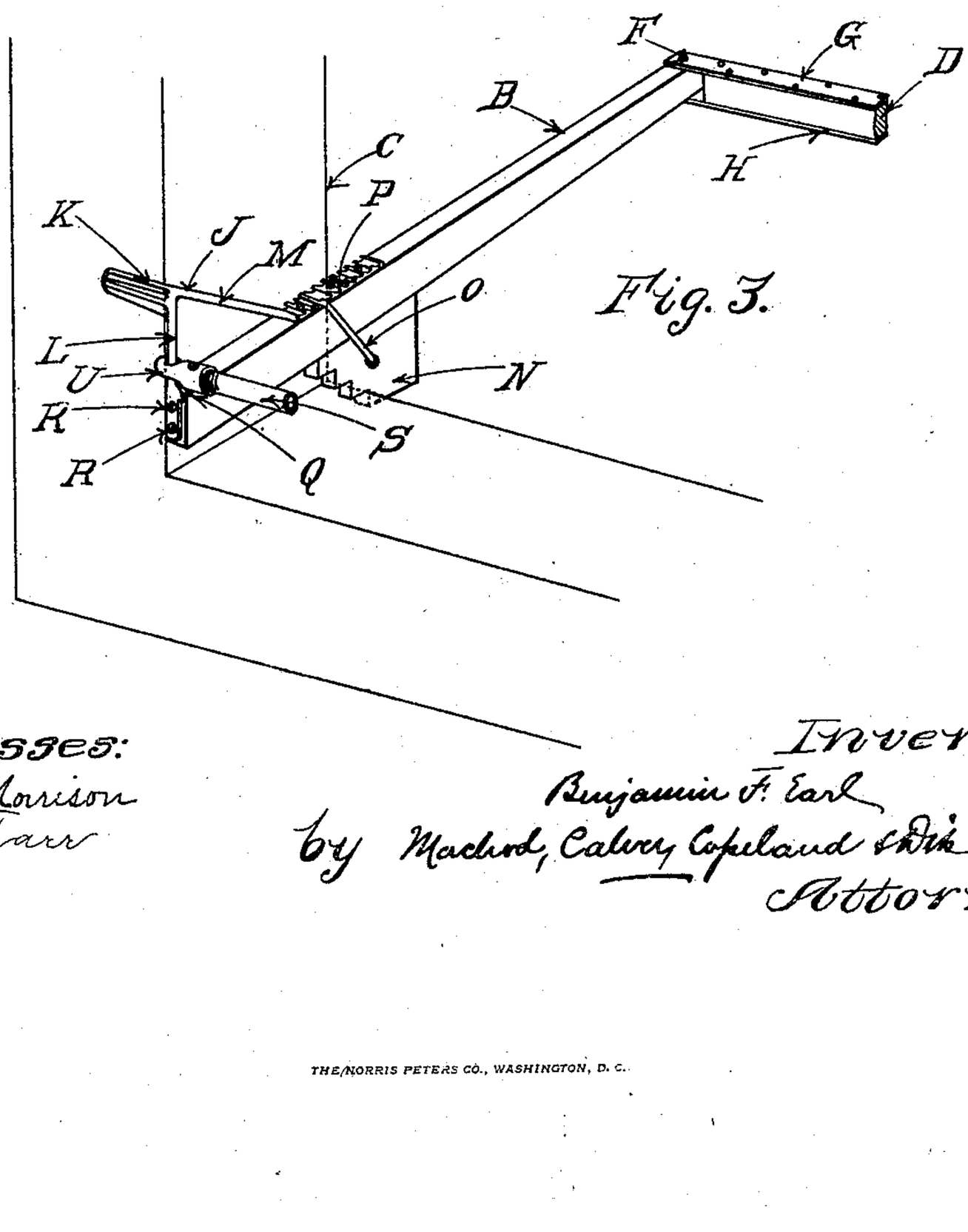


Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## WINDOW-STAGE.

No. 841,676. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed December 15, 1905. Serial No. 291,866.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. EARL, a citizen of the United States, residing at Neponset, in the city of Boston, county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Window-Stages, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to window-stages of the kind which may be supported by the sill and casing of a window with the rest of the stage projecting outside of the window and forming a convenient platform for persons to work on the outside of a building. By placing two of these stages in adjacent windows and by putting suitable boards or planks from one to the other a staging along the side of the building is formed.

My invention has for its object to provide a window-stage of this kind which shall be stronger, more secure, and easier to put in place than those heretofore used.

A window-stage embodying my invention when put in place may be used with absolute safety, there being no danger of its becoming displaced.

My improved window-stage is also capable of use with windows of various widths and with various styles of casing and sill.

The invention will be readily understood from the following description, taken in connection with the accompanying drawings, and the novel features thereof are particularly pointed out and clearly defined in the claims at the close of the specification.

In the drawings, Figure 1 is a plan view of a window-stage embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a view in perspective of the window-stage in place in a window, the window sill and casing being indicated in outline only.

Referring to the drawings, A and B are side bars which when the window-stage is in place lie substantially parallel with the interior of the casing C. The side bars A and B are attached at their outside ends to a cross-bar D by the pivots E and F. In practice I find it convenient to make up the cross-bar D with straps of sheet-iron G and H above and below, which materially increase the strength of the device. At the inner ends of the side bars A and B are placed what for convenience may be termed "casing-hooks" I and J, which engage the window-casing C at a point considerably above the inner ends of the side bars A and B. This arrangement by which the casing-hooks I and J engage the casing at a point above the ends of the side bars is very important, because it insures the window-stage against tilting or tipping, while at the same time it puts the minimum of strain upon the various parts. The casing-hooks I and J may be made of any convenient form. In practice I find it convenient to make them substantially of the form shown in the accompanying drawings, in which the part K, which engages the window-casing, is supported by a vertical rod L, which is screwed or otherwise suitably attached at its lower end to the rear end of the side bar, as shown at R R, Fig. 3, a shoulder Q being formed at the lower end of the vertical supporting-rod L in order that the screws R R may be relieved as mush as possible of the strain. A brace M extends diagonally from the casing-hook K to the upper side of the side bar, so that the strain on the casing-hook is as direct as possible. The ends of the casing-hooks K which engage the casing are made, preferably, at a slight angle with the side bars A and B, as seen clearly in the plan view, in order that the said hooks may engage the window-casing when used with wide windows at a point as near as possible to the corner of the casing, which prevents as much as possible any twisting or wringing action upon the support L and brace M. It will be noticed that the upper edge of the bolster N is inclined slightly as compared with the lower edge, so that the stage when in place in the window slants slightly toward the building. This arrangement prevents the stage from sagging or any articles which are placed on the stage from sliding off.

The window-stage is supported upon the window-sill by means of a stepped bolster N, which is attached to the side bars by the connecting-link O. A plate P, containing notches for the reception of the connecting-link O, is located at the upper edge of the said side bar. The points of the notches in the said plate P are inclined somewhat toward the inner end of the side bar, as shown in Fig. 2, in order that there may be no possibility of the link O becoming disengaged from the said notches, and thus releasing the bolster.

In practice I find it convenient to make

the casing-hook K, its support L, the brace or tie-rod M, and the plate P all in one casting, from malleable iron or other suitable material, as this construction facilitates putting the parts together and affords a maximum of strength with a minimum of weight.

In order that the side bars A and B, provided with the casing-hooks I and J, may be held securely in engagement with the sides of the window-casing, a spreader is provided which consists of a telescopic slide comprising two suitable lengths of pipe S and T, attached to the vertical supporting-rods L by eyes U, one of the pipes, as T, being of a diameter slightly less than that of the other pipe S. The smaller pipe T is screw-threaded for a distance from its inner end, as shown at V, and provided with a correspondingly screw-threaded collar or nut X, by means of which the larger pipe S may be forced longitudinally along the other pipe T, so that the side bars A and B may be spread to any desired position and fixed there, the said side bars being forcibly held against the sides of the window-casing. It will be seen that this arrangement of parts forms a convenient means for adjusting the window-stage for any desired size of window with which it is to be used and for locking the parts in position when adjusted.

When the window-stage is not in use, the smaller pipe T may be withdrawn from the larger pipe S and swung about the eye U until in a position substantially parallel to the side bars A and B, after which the side bars A and B may be swung about their pivots E and F until the ends of the side bars A and B engage each other. When the parts are in this position, the window-stage is in a convenient condition to be moved or stored.

What I claim is—

1. In a window-stage, in combination, two side bars, a cross tie-bar pivotally connected to both of said bars at the outer ends, an extensible connection between said side bars at their forward ends, said extensible connection consisting of two bars, one of which is pivotally connected with one of said side bars and the other of which is pivotally connected with the other of said side bars, the inner ends of said two members having telescopic connection with each other, means for moving said two members longitudinally with relation to each other in opposite directions, and holding them in their adjusted position, the axis of the pivotal connection between each of said members and its respective side bar being at right angles with the side bar, whereby when said telescopic members are disengaged from connection with each other, each may be swung parallel with its respective side bar, and means for securing the inner ends of the side bars to a window-casing.

2. In a window-stage, in combination, two side bars, a cross tie-bar pivotally connected with both of said side bars at the outer ends, each of said side bars having secured at its inner end a vertical arm which extends above the forward end of the side bar, a hook which extends laterally outward from the upper end of said vertical arm and is adapted to engage a window-casing, an extensible connection between said side bars at the forward ends, said extensible connection consisting of two bars, one of which is pivotally connected with the vertical arm of one of said side bars and the other of which is pivotally connected with the vertical arm of the other of said side bars, the inner ends of said two pivoted bars having telescopic connection with each other, means for moving said two pivoted bars longitudinally with relation to each other in opposite directions, each of said pivoted bars when they are disengaged from each other being adapted to swing around parallel with its respective side bar, and means coöperating with said hooks to secure the stage to a window-casing.

3. In a window-stage, the combination of two side bars, a cross-bar pivotally connected to the outer ends of both of said side bars, an extensible connection between said side bars at the forward ends pivotally connected therewith, each of said side bars having secured at its inner end a vertical arm which extends above the forward end of the side bar, a hook which extends laterally outward from the upper end of said vertical arm and is adapted to engage a window-casing, a ratchet-plate secured to the upper side of the side bar at some distance back from the end thereof, an inclined arm connecting the upper end of said vertical arm with said ratchet-plate, a stepped bolster on the under side of the side bar and a link connection between said bolster and said ratchet-bar, said bolster being adapted to engage the window-sill while said hooks engage the window-casing.

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

BENJAMIN F. EARL.

Witnesses:
GEORGE P. DIKE,
J. HENRY PARKER.