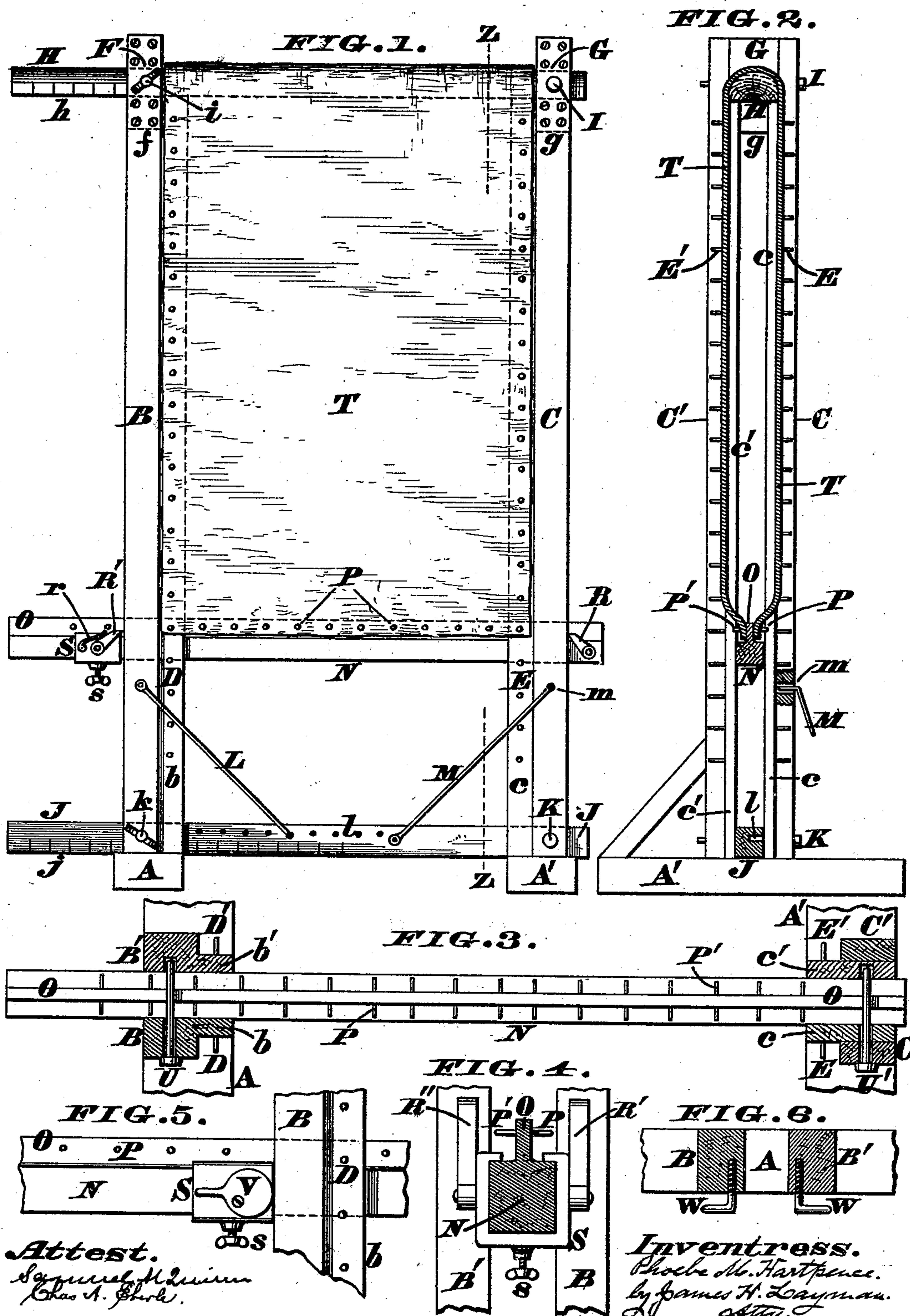


(No Model.)

P. M. HARTPENCE.
CURTAIN STRETCHER.

No. 517,694.

Patented Apr. 3, 1894.



UNITED STATES PATENT OFFICE.

PHOEBE M. HARTPENCE, OF HARRISON, OHIO.

CURTAIN-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 517,694, dated April 3, 1894.

Application filed November 23, 1893. Serial No. 491,709. (No model.)

To all whom it may concern:

Be it known that I, PHOEBE M. HARTPENCE, a citizen of the United States, residing in Harrison, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Curtain-Stretchers; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

This invention relates to those curtain-stretching frames which include a stationary standard, a laterally-shiftable standard, an upper or fixed rail, and a lower or vertically-adjustable stretching-rail; and my improvement comprises a specific combination of parts that enables a ready adjustment of such frames and compels them to stand perfectly square, so as to prevent the curtains being drawn out of their proper shape while drying, as herein-after more fully described.

In the annexed drawings, Figure 1 is a front elevation of my improved frame with a curtain applied thereto. Fig. 2 is a vertical section of the same taken at the dotted line Z—Z. Fig. 3 is an enlarged horizontal section of the frame taken in the plane of the stretcher-bar N. Fig. 4 is a greatly-enlarged vertical section of said bar. Figs. 5 and 6 show modifications of the invention.

Referring to Fig. 1, A, A', represent a pair of feet or sills from which project vertically two rigid standards composed of front stiles B, C and rear stiles B', C', the stiles of each standard being separated a suitable distance to admit a bar and two rails, as will more fully appear hereinafter. Furthermore, the opposing edges of these stiles are rabbeted longitudinally, as at *b. b'. c. c'*. which rabbeted portions are armed with horizontally-projecting pins D, D', E, E', over which the side margins of the curtains are engaged. The devices A, B, *b. b'*, will hereinafter be alluded to as the "shiftable standard," while their counterparts A', C, *c. c'*, will be designated as the "stationary standard."

The dotted line F, in Fig. 1, indicates a block to which the extreme upper ends of the stiles B, B', are united, and the dotted line *f* indicates another block a slight distance below the upper one, these blocks being dupli-

cated for the other stiles C, C', as suggested by the dotted lines G. *g.* in Fig. 1, and as clearly shown in Fig. 2. The open spaces between these blocks are traversed by the top rail H of the frame, one end of said rail being fastened to the stationary standard by a readily-removable pin I, while its other end is secured to the shiftable standard by a thumb screw *i*. This rail is sufficiently wide to be flush with the outer faces of the stile rabbets, as seen in Fig. 2, is rounded on its upper surface, and is provided with an inch scale *h*, which scale, in connection with the similar one *j*, on the bottom rail J, facilitates the adjustment of the standards to the width of curtain, and enables them to be set perfectly parallel with reference to each other. Rail J is fastened to the stationary standard by a pin K, and is coupled to the shiftable standard by a thumb screw *k*, a series of holes *l* being made in said rail to admit the free end of a hook L, coupled to the stile B. M is a similar hook, coupled to said rail, and having its free end engaged with a hole *m* of the stile C, which arrangement of hooks may be duplicated at the back of the frame, if desired.

Adapted to be moved readily in the vertical openings or slots of the standards is a stretcher-bar N, whose upper edge has a central tongue O, from which project horizontally two sets of pins P P. R is a dog or other detent pivoted near one end of this bar N and adapted to automatically engage with the edge of stile C, and R' is another dog capable of engaging with the edge of stile B. This dog R' is not applied directly to the stretcher bar, but is pivoted to a slide S capable of being shifted along said bar and then held to any specific adjustment by means of a thumb screw *s*.

r is a spring that may be employed for rendering the action of the dog more positive.

T is a curtain or screen or other fabric, which is applied to the frame in the following manner: The width of the curtain being known, the shiftable standard is set accordingly, and is held in position by means of the thumb screws *i, k*, and the curtain is then thrown over the rail H, care being taken to have the two lower ends of the curtain exactly in line with each other. Bar N is now

brought to a position where the front end of the curtain can be engaged over the pins P, while the other pins P', are passed through its rear end. The bar is then depressed, for the purpose of stretching the curtain longitudinally and when the desired tension has been obtained, the dogs R', R, are allowed to bite against the stiles B, C, and thereby prevent said bar being pulled up by the drying and consequent contraction of the fabric. The front side-margins of the curtain are engaged over the pins D, E, and the other pins D', E', are passed through the rear side margins, and then the curtain is left in this position as long as may be necessary. Fig. 2. shows that the curtain, although doubled, is yet so separated as to allow a free circulation of air over its inner surfaces, which circulation is due to the openings in the standards, and causes a rapid and uniform drying. After the curtain is dried, its ends are disengaged from the pins P, P', and the bar N is lowered and rested upon the rail J, after which act the edges of said curtain are disengaged from the other pins D, D', E, E', and the operation is completed.

The above is a description of the preferred form of my invention, but the details of construction may be greatly modified, an evident change being seen in Fig. 3, where the stretcher bar is held against the pull of the curtain by pins *w, w'*, inserted in holes of the standard, of which openings quite a number must be used to accommodate different lengths of curtains, and to prevent any excessive strain on them. This illustration shows, also that the rabbets *b, b'*, are integral with the stiles B, B', while the rabbets *c, c'*, are formed by inner strips secured to outer ones.

In Fig. 5 the slide S has a cam V pivoted to it, for the purpose of holding the bar N in place. Fig. 4 shows that this slide may have a secondary dog R'', to act against the stile B'. Fig. 6 shows that the rabbets may be omitted from the stiles, and hook-shaped pins W be substituted for them, but in some cases the pins may be dispensed with and the stiles and stretcher bar be provided with listing or other similar material to which the margins of the curtains can be stitched. It will be noticed that either of these frames causes the curtains to dry perfectly square and without tearing out their edges, because the dead

weight of the fabric is supported by the upper rail H, and not by the side pins, as is done with the usual forms of stretchers. It will be noticed that these frames are only one half as long as the usual stretchers, and are capable of holding a number of curtains at once— provided they are all of the same size.

To separate the frame, the screw *s* is first unslackened, in order that the slide S may be removed from the bar N, and then the latter is pulled to the right until it is free from the standards. The pins I, K and hooks L, M, are drawn out of their holes, and thumb nuts *i, k*, unscrewed, to enable the detachment of rails H, J, after which act, the component parts of the frame can be packed very closely together, so as to be shipped in a "knock down" condition, the various pins being effectually protected because they do not project beyond the outer surfaces of the stiles and stretcher-bar.

I claim as my invention—

The combination, in a curtain-stretching frame, of the sill A, supporting a laterally-shiftable standard consisting of a pair of vertical stiles B, B', separated by an opening and united at top by blocks F *f*; the sill A' supporting a stationary standard consisting of a pair of stiles C, C', separated by an opening and united at top by blocks G *g*; the top rail H inserted between said blocks F, *f*, G, *g*, and connected to said standards by a pin I and thumb screw *i*; the bottom rail J, occupying the openings between said standards, and secured to them by a pin K and thumb screw *k*; the hook L, pivoted to the stile B and having its free end engaged with either one of a series of holes *l* in said bottom-rail J; the hook M, pivoted to this rail, and having its free end engaged with a perforation *m* of the stile C; and a stretcher bar N, vertically adjustable within the openings between the standards, and having devices that secure it in place; said standards, and the stretcher-bar, being provided with means for the ready attachment of a curtain, all as herein described.

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

PHOEBE M. HARTPENCE.

Witnesses:

WILL E. TAYLOR,

WM. T. BARTOLETTE.