2 Sheets—Sheet 1.

W. HIPKINS.

Paper-Shutter for Windows.

No. 199,291 Patented Jan. 15, 1878.

Fig. 1.

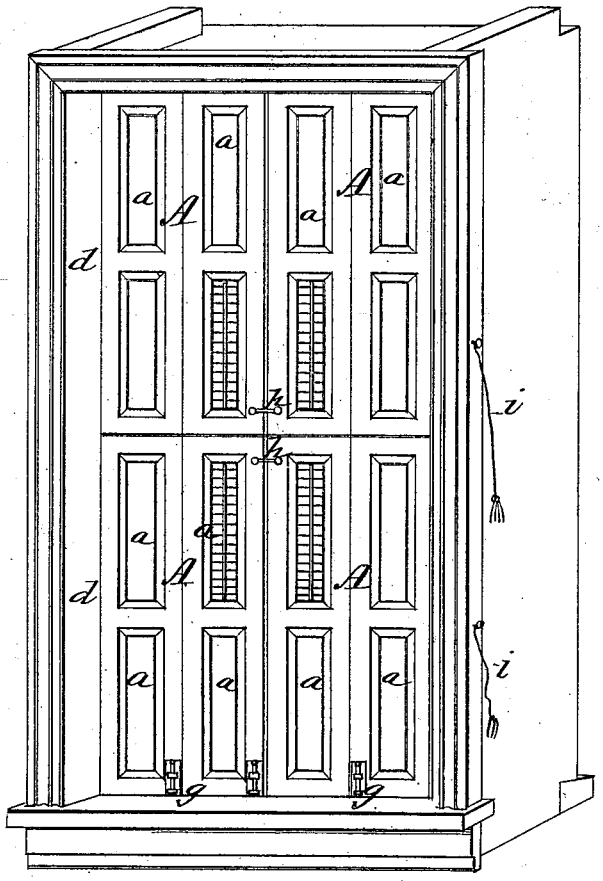


Fig. 4.

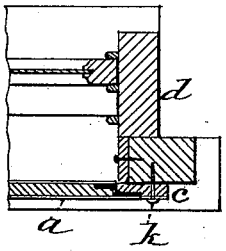


Fig. 5.

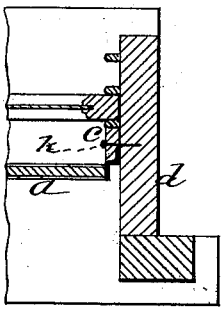


Fig. 6.

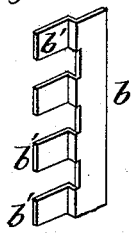
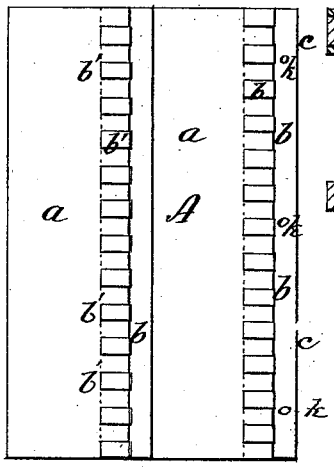


Fig. 2.



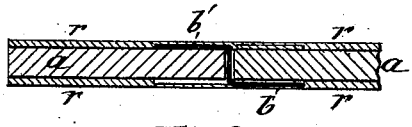
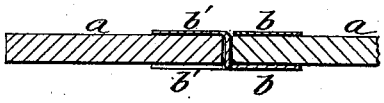


Fig. 3.



Witnesses;
Floyd Farris.
J. E. Wildman

Inventor;
Wm. Hipkins
by his Attys
Johnson & Johnson

2 Sheets—Sheet 2.

W. HIPKINS.

Paper-Shutter for Windows.

No. 199,291. Patented Jan. 15, 1878.

Fig. 7.

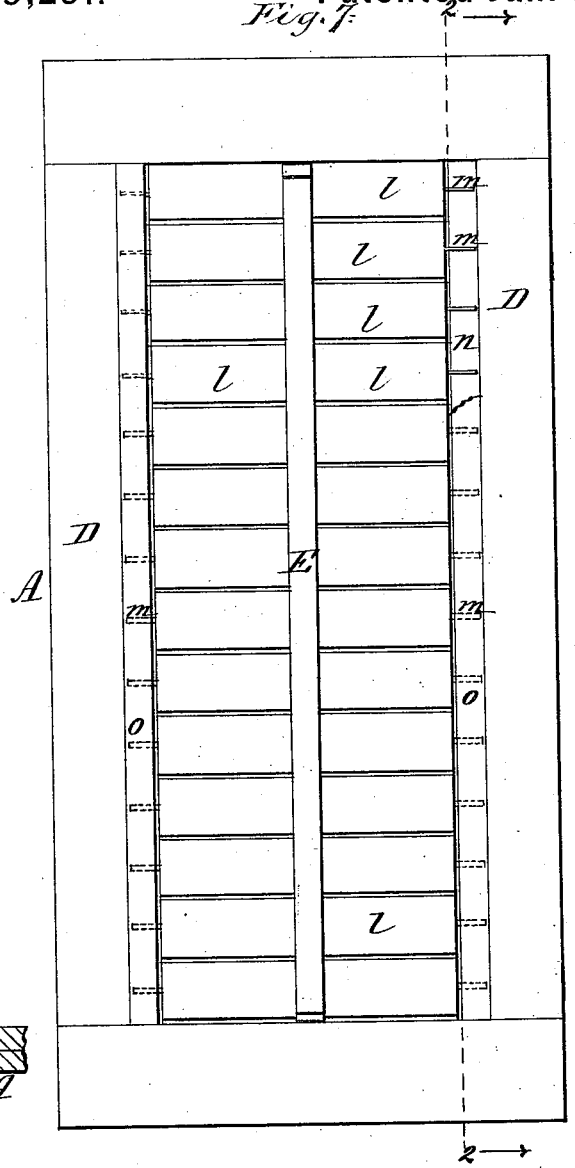


Fig. 8.

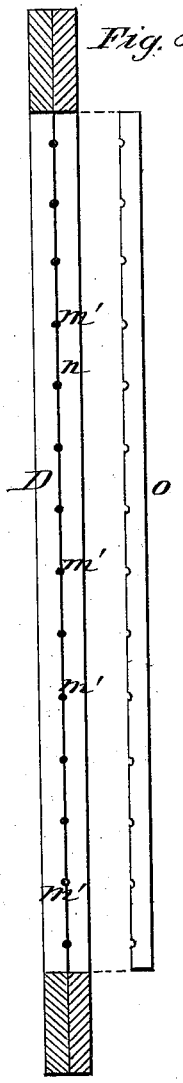


Fig. 12.

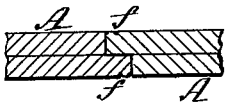


Fig. 10.

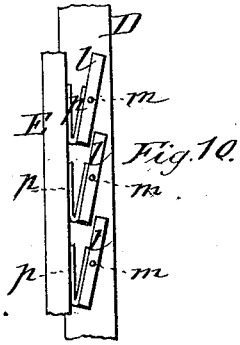


Fig. 11.

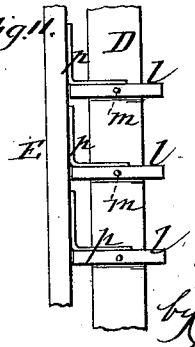
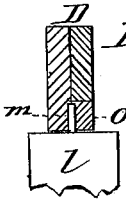


Fig. 9.



Witnesses;
Floyd Norris.
J. E. Wildman

Inventor;
Wm. Hipkins
by his Attys
Johnson & Johnson

UNITED STATES PATENT OFFICE.

WILLIAM HIPKINS, OF BELLAIRE, OHIO, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO HENRY D. MEEK, OF SAME PLACE.

IMPROVEMENT IN PAPER SHUTTERS FOR WINDOWS.

Specification forming part of Letters Patent No. **199,291**, dated January 15, 1878; application filed September 3, 1877.

To all whom it may concern:

Be it known that I, WILLIAM HIPKINS, of Bellaire, in the county of Belmont and State of Ohio, have invented a certain new and useful Improvements in Manufacture of Paper Inside Shutters for Windows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The invention consists in the manufacture of blinds or inside shutters for the windows of houses, from paper, the constructions necessary to carry out the invention being hereinafter described.

I construct the parts of the shutters of paper, prepared by any approved process suitable to such purpose, and preferably waterproofed. I cover the paper shutter with a thin paper or other material, bearing the design of panel, &c., printed or stamped thereon, or the whole part may be molded with sunk panels, and covered or thin paper molding may be veneered on.

The panels may be provided with fixed slats, or with movable slats pivoted in the stiles of the parts, and operated by a regulating-strip attached to the slats by flexible hinges of fabric, as hereinafter described.

The panels, ordinarily two, composing each part are jointed by flexible hinges of fabric, which, when neatly executed, form a perfect hinge and close joint. These joined panels are hinged, in a similar manner, to jamb-pieces for attachment to the jambs, which pieces are wide or narrow to suit different styles of windows, and are so made with reference to the folding of the shutters, as hereinafter set forth.

At the point of junction of the shutter parts in the center line of the window they are provided with rabbets to close the joint and shut out the view, and to prevent the shutter from springing or warping.

The jamb-pieces can also be applied upon the surface of the architrave, where the jamb is too shallow to receive the wooden shutter now in use, which is an important advantage, permitting of the application of inside shutters to any house without alteration of the windows.

In the accompanying drawings, Figure 1 represents the inside of a window, the paneled inside shutters being made of paper; Fig. 2, a detail elevation of one of the shutter parts, the outer covering being removed and the fabric hinge laid bare; Fig. 3, a section of Fig. 2, with and without the paper or other covering; Fig. 4, a cross-section of shutter-jamb piece on the outside of the architrave; Fig. 5, a similar section, showing the shutter-jamb piece upon the jamb; Fig. 6, a detail of one of the leaf sides of the tongued fabric hinge; Fig. 7, a face view of one of the panels, the broken portion showing the method of pivoting the slats; Fig. 8, a vertical section at the line 22 of Fig. 7; Fig. 9, section of Fig. 8, showing slat-connection; Fig. 10, a vertical longitudinal section of a portion of the slatted panel, showing the slats closed; Fig. 11, a similar view, the slats being fully opened; and Fig. 12, detail of shutter rabbet-joints.

The shutter parts A are made of paper prepared by any approved process, and the panels or sections *a a* composing said parts are united by a flexible joint-hinge, *b*, of cloth or fabric, the strip of fabric being cut, as shown, with tongues *b* in the detail, Fig. 6, two strips being glued one on each side of the same section, and the tongues of each strip lapping on opposite sides of the adjacent section, as shown in Fig. 3. These hinge-strips extend from top to bottom.

The jamb-pieces *c c* may be of different widths to accommodate the parts to different styles or patterns of window-jambs *d d*.

In applying the jamb-piece *c* to a narrow jamb, it is made equal in width to the distance of the face of the architrave-jamb from the first bead, whereby its hinge with the shutter part will be on the edge of the jamb, which permits the shutter to be folded back against the architrave, as shown in Fig. 4, while in deep-set windows a narrow jamb-piece is used, permitting the shutter part to fold within the jamb-space, as in Fig. 5; or the jamb-pieces

in certain constructions of windows may be fastened directly to the architrave, thus permitting of the use of inside shutters to windows where the ordinary wooden shutters are entirely inapplicable.

Rabbets or rabbet-strips *f f* upon the parts at their point of fastening in the center line of the window, one upon each part A upon opposite sides, form a close joint, and prevent the parts from springing or warping longitudinally, as shown in Fig. 12.

The shutters, when closed, are fastened by bolts *g g* to the sill, or by hooks *h h* at the middle joint, as usual. They are fastened back by cord and tassel *i*, or by any suitable means. No hinges are necessary to the attachment of these shutters. The jamb-pieces may be fastened, by simple pins or screws *k*, in their proper places.

As before stated, a thin covering, *r*, Fig. 3, of paper or other material bearing a stamped or printed ornamentation, covers the paper parts and completely hides the cloth or fabric hinges. The panels are slatted and the slats regulated to open and close in the following manner:

Referring to Figs. 7, 10, and 11, the slats *l* are provided with pivot-pins *m*, which work in bearing-holes *m'*, Fig. 8, in the stiles D, which bearings *m'* are in a cut-out portion, *n*, of the stile. This cut-out portion is covered, after the pivots are arranged in place, by a face-strip, *o*, Figs. 7, 8, 9, flush with the face of the stile and glued on. The slats are operated to open and close by a regulating-strip, E, which is also attached to the slats by fold-hinges *p*, of fabric, glued or fastened to the strip and the slats. The fabric hinge in this case is not covered, but left free to move.

Each fabric hinge *p* is glued or fastened to the inner side of the regulating-strip E, and to that side of the slat which is inward when closed, so as to make a close fold of the slats, and to prevent them from passing the point of full opening.

A shutter composed of paper is not so liable to be affected by shrinkage and expansion, and therefore is free from the disadvantages of binding or open joints. It is lighter than wood, and cheaper. It is capable of being attached to houses having windows of such construction as to render the attachment of wooden inside shutters practically impossible. It admits of every variety of painting or gilding, or ornamentation in set patterns ready for the trade, renewable at any time in the same manner that wall-paper is renewable. It permits the occupant of a cottage to have many varieties of ornament with regard to his shutters. It improves, particularly, the dwellings of the poorer classes, and contributes to their refinement by allowing them the exercise of a taste for elegance at little expense.

I claim—

1. A paper-shutter part for the inside of windows the panels whereof are joined by a fabric hinge.

2. Paper shutter parts constructed with panels and jamb-pieces united by hinges of fabric.

3. Paper-shutter parts constructed with panels and jamb-pieces, and with a thin covering, which may bear panel imitations or ornaments.

4. In a paper-shutter part, the jamb-pieces *c*, adapted to be attached to deep or narrow jambs or to the architrave-jambs, substantially as described.

5. In combination with the pivoted slats of a paper shutter, the regulating-strip E and fabric hinges *p*, substantially as described.

In testimony that I claim the foregoing I have affixed my signature in the presence of two witnesses.

WILLIAM HIPKINS.

Witnesses:
D. B. SIMPSON,
H. W. SIMPSON.