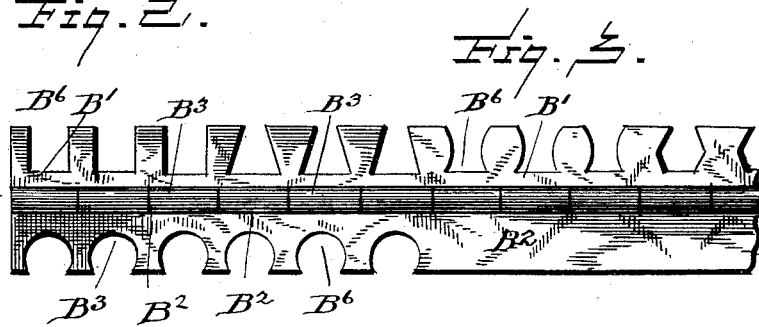
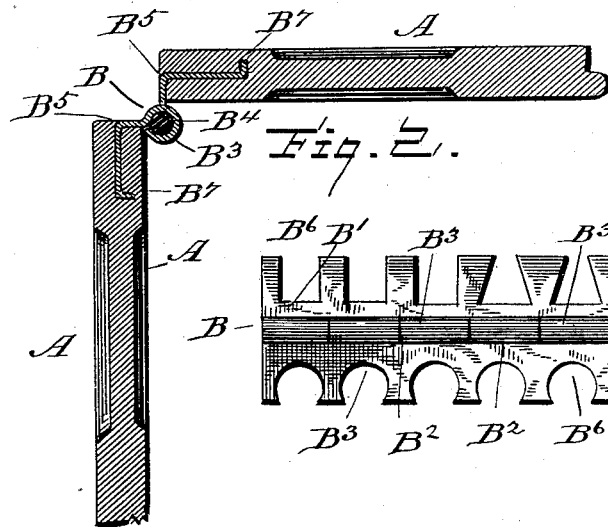
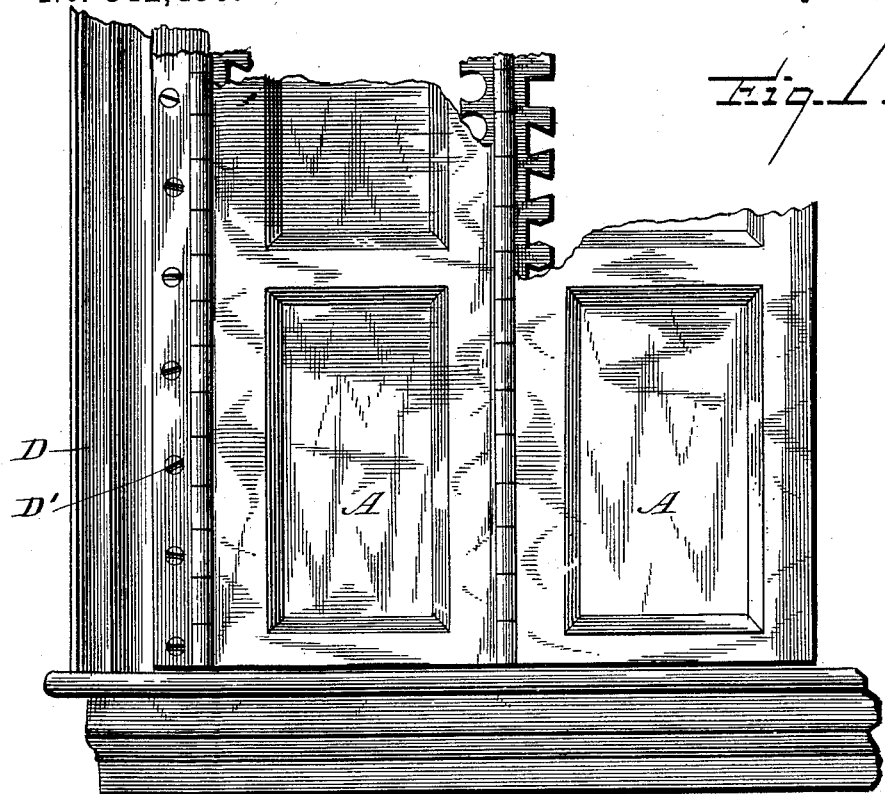


(No Model.)

I. PAINE.
SHUTTER.

No. 342,456.

Patented May 25, 1886.



WITNESSES:
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UNITED STATES PATENT OFFICE.

IRVING PAINE, OF HORNELLSVILLE, NEW YORK.

SHUTTER.

SPECIFICATION forming part of Letters Patent No. 342,456, dated May 25, 1886.

Application filed January 29, 1886. Serial No. 190,166. (No model.)

To all whom it may concern:

Be it known that I, IRVING PAINE, a citizen of the United States, residing at Hornellsville, in the county of Steuben, State of New York, have invented certain new and useful Improvements in Shutters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to inside shutters of that class which are constructed of paper, paper-pulp, straw-board, wood, wood pulp, or other suitable material, and to the means employed for connecting the same either with or without the use of screws or other securing devices; and the invention consists in certain features of construction hereinafter described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an elevation, with parts broken away, of a portion of a window casing and shutters embodying my invention. Fig. 2 is a horizontal section, somewhat enlarged, of two adjacent shutter-sections; and Fig. 3 is a plan of the hinge employed in connecting said sections.

Like letters indicate like parts in all the figures of the drawings.

A represents a shutter or shutter-section, which, as before stated, may be made of paper, paper-pulp, wood pulp, or any other light desirable material, and which, as in the instance shown in the drawings, where it is represented as made of paper-pulp, may be compressed by suitable dies into a desired configuration in representation of any fanciful design for a shutter or shutter-section.

B represents the hinge employed for connecting the shutter-sections, and it comprises plates or leaves B' B², having portions B³ projecting from one edge to form separate eyes, between which and similar eyes of an adjoining plate a pintle, B⁴, is passed, after the manner of an ordinary hinge. Each of the plates B' B² is transversely bent, as at B⁵, at a distance from the eye thereof equal to about one-half the thickness of the shutter-section. The free edge of each plate may be notched, as at B⁶, either plainly or to form a dovetail recess, so that when the mass of pulp or other similar substance of which the shutter is or may be composed is compressed upon the free edges

of the hinge-plates or leaves, said pulpy mass will be forced into said recesses, and when the same is completed a firm connection of the hinge with the shutter is secured.

It is apparent that I may employ rivets or screws to secure the parts together when the free edges of the hinge-plates are not recessed; or, as a further preventive of their becoming loose, I may form along the free edge of the plates a flange, B⁷. (See Fig. 2.) Should wood or other like material be employed, the edges that are to be connected may be sawed to form slits into which the hinge plates or leaves may be readily inserted, and which may be held firmly in place by screws or rivets, as may be desired.

The edge of the shutter or shutter-section which is secured to the casing D may be fastened by screws D', as shown in Fig. 1, or in any other suitable manner.

By the construction described I provide shutters which are light, strong, and serviceable and not liable to become detached or loose along their hinge-lines, and so far as the manner of connecting the hinges to the shutter-sections is concerned, the hinge or hinge-plates may extend either completely or only partly along the hinge-line.

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

1. A pulp shutter connected with its hinge by compression, substantially as specified.

2. A pulp shutter, in combination with a hinge, a plate of which is embedded in the pulp, substantially as specified.

3. A hinge for pulp shutters, having recesses in the free edges of its plates, substantially as specified.

4. A hinge for pulp shutters, having dovetail recesses in the free edges of its plates, substantially as specified.

5. The combination of the shutter-sections A and the hinge B, having the recesses B⁶, substantially as specified.

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

IRVING PAINE.

Witnesses:

WM. C. BINGHAM,
HOMER HOLLIDAY.