

(No Model.)

G. HAYES.
BLIND SLAT, &c.

No. 335,353.

Patented Feb. 2, 1886.

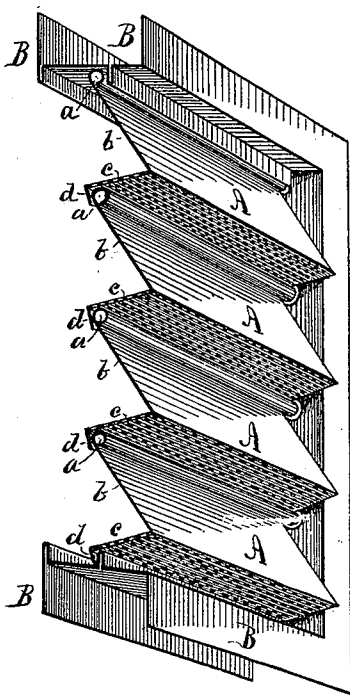


Fig. 1.

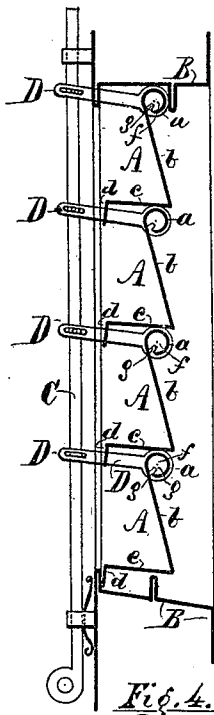


Fig. 4.

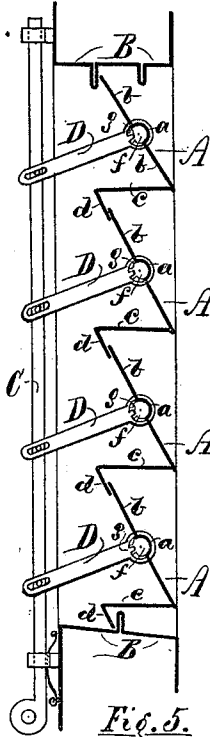


Fig. 5.

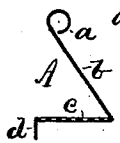


Fig. 2.

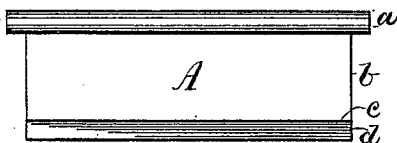


Fig. 3.

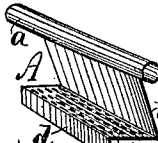


Fig. 6.

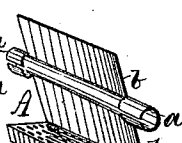


Fig. 7.

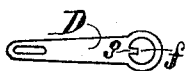


Fig. 8.



Fig. 9.

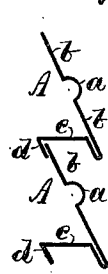


Fig. 10.

Witnesses

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BLIND-SLAT, &c.

SPECIFICATION forming part of Letters Patent No. 335,353, dated February 2, 1886.

Application filed June 29, 1885. Serial No. 170,153. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HAYES, a resident of the city, county, and State of New York, have invented a new and useful Improvement in Louver and Blind Slats, with Apparatus for Operating the Same, of which the following is a specification.

My invention consists of a slat for louvers and blinds having a water shed portion, and at an angle therewith extending inward a perforated flange or ventilating portion, the slat being hung by pivots at each side or end, so as to swing outward and inward when operated, and when open or swung outward adapted, by means of the perforated flange to furnish ventilation and a degree of light, which will of course be shut off when the slat is swung inward in either position, affording a complete protection to the interior of the structure in which the slat has been incorporated from leakage or driftage in storms.

It further consists of a combination consisting of two or more such slats, forming a series, arranged one above the other, constituting a panel suitable for turrets, clear-stories, and church-towers; also, in connection with skylights in their bases or vertical sides, and, also, in ordinary windows, doors, and vertical walls of buildings, railroad-cars, marine vessels, &c., each upper slat covering and protecting the one beneath, and all adapted to be opened and closed simultaneously—when open affording protected ventilation, and when closed absolute security against storms.

It further consists of a combination of operating device therewith which will enable them to be opened and closed simultaneously, and securely hold them in any position, as hereinafter described.

In the accompanying drawings, Figure 1 is a sectional view with continuation in perspective, as viewed from below, in order to show the perforated (or apertured) ventilating-flange below the water-shed. Fig. 2 is a vertical section of one slat. Fig. 3 is a front elevation of the same slat as Fig. 2, showing the pivots at each end. Fig. 4 is a vertical section of the series of slats, giving their position when closed, and showing the operating device. Fig. 5 is a vertical section of a series of slats equivalent to those of Fig. 4—the only differ-

ence, material, is in the position of the pivots, they being formed lower down in the slat. Fig. 6 is a perspective view of one slat like Figs. 1, 2, 3, and 4, showing inside, also the pivots at each end. Fig. 7 is a similar view of the slat as shown in Fig. 5. Fig. 8 is a view of the lever belonging to the operating device. Fig. 9 is a vertical section of two slats, showing how they may be molded into ornamental forms. Fig. 10 is a vertical section of another modification in form.

A represents the slat formed of sheet metal, such as galvanized sheet-iron; or it may be of copper. It may also be made of cast-iron or other material.

a a represent the pivots, when of sheet metal, formed by the roll at the upper edge of the slat, the part below being cut shorter, so that they appear as extensions of the roll. These pivots so formed may be inserted into perforations or holes made in the cheeks of the casing into which the slat is to fit; or other means of hanging may be adopted.

b represents the water-shed portion of the slat, formed without openings of any sort.

c represents the ventilating portion of the slat, consisting of a perforated or apertured flange arranged at any suitable angle with regard to the water-shed inside the same, and extending inward far enough to cover the space between water-shed and pivot-roll of the slat next below when the slat is standing outward to extreme limit desired.

I do not limit myself to size, shape, or number of apertures therein; neither to the material of which this flange is composed. It may form a part of the same sheet with the remainder of the slat or be attached thereto.

d is another flange, bent downward from the ventilating-flange or attached thereto. It sets against the "pivot-roll" when the slat is standing out to extreme limit, and serves to protect the joint. It also prevents the slat going farther outwardly, securing the interior against storms entering the joint.

B represents a casing formed to receive the slats, which they fill as a panel. There may be any number of these slats to form a series for use in turrets, towers, windows, &c.; or the number used may be reduced to one, and such may be set into any suitable casing, and

they answer as blinds or as louvers, excluding the sun's rays while admitting of ventilation. They also exclude flies, mosquitoes, &c.

The operating device consists of a rod, C, 5 secured to the wall or casing inside by eye attachment in any suitable manner which will permit of its being moved upward and downward to sufficient distance. A lever, D, is formed, as shown in Fig. 8, to serve as a connection between the rod and the slat. It is 10 stamped and cut from sheet metal, although it may be cast or otherwise formed. It has an eye or aperture, *f*, and a portion left to form a key, as at *g*. The eye fits over the 15 pivot of the slat, and the key fits into the slit between the edges of the roll, to compel the roll or pivot to turn as the lever D is moved by the upward or downward motion of the rod C. The lever, where in contact with the 20 rod, has a slot, into which a pin belonging to the rod may operate.

Other means of connecting the lever to the rod may be used, if desired.

In Figs. 5, 7, and 10 the pivot-roll is further 25 down the slat than in the other views. It there forms a molding; but the construction is analogous to the other form described. In that case the flange *d* fits to the upper edge of the slat.

30 The flange or ventilating-plate *c* affords opportunity of looking out without being ob-

served from without, and may be molded, as shown in Fig. 9.

The small flange *d* may be dispensed with, which would admit of the slat being thrown 35 more open, leaving a clear space between the apertured flange *c* and the next slat below, so that no obstruction to vision would occur, when desired.

What I claim as new, and desire to secure 40 by Letters Patent of the United States, is—

1. A pivoted and movable louver or blind slat having water and ray shed *b*, and at an angle therewith an apertured ventilating-flange, 45 *c*, substantially as shown and described.

2. In combination, a series of pivoted and movable louver or blind slats having ray and water shed *b*, and at an angle therewith, extending inward, an apertured ventilating-flange, *c*, each arranged to cover and protect 50 the slat beneath it from leakage and driftage, substantially as shown and described.

3. The operating device comprising rod C and lever D, of stamped or cast metal, having aperture *f*, with key *g*, arranged to fit over 55 the pivots *a*, substantially as shown and described.

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Witnesses:

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JACOB J. KOCH.