(No Model.)

G. HAYES.

VENTILATING SCREEN.

No. 345,692. Patented July 20, 1886.

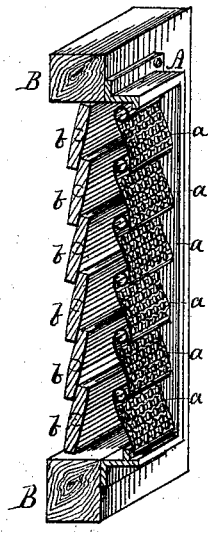

Fig. 1.

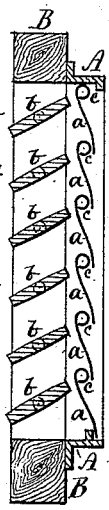

Fig. 2.

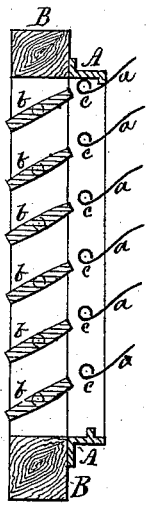

Fig. 3.

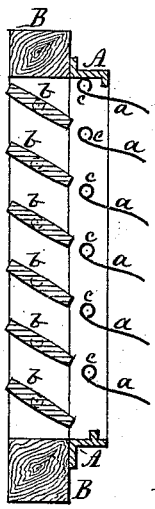

Fig. 4.

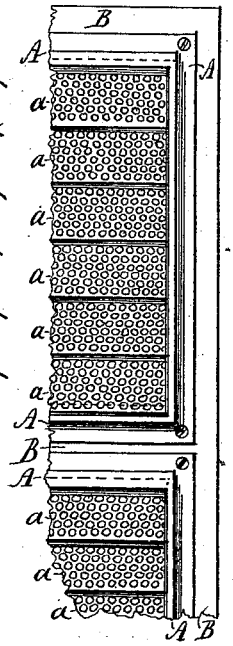

Fig. 5.

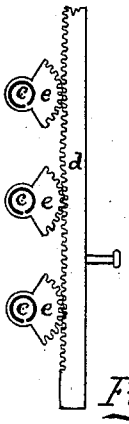

Fig. 6.

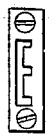

Fig. 7.

Witnesses:
Jacob J. Koch
Charles Hayes

Inventor:
Geo Hayes.

UNITED STATES PATENT OFFICE.

GEORGE HAYES, OF NEW YORK, N. Y.

VENTILATING-SCREEN.

SPECIFICATION forming part of Letters Patent No. 345,692, dated July 20, 1886.

Application filed December 2, 1885. Serial No. 184,422. (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 certain new and useful Improvements in Ventilating-Screens for Blinds, Windows, Doors, and other Places, of which the following is a specification.

My improvements are intended more particularly as an attachment for window-blinds, capable of being readily removed therefrom when desired; but they are applicable for insertion into or against any suitable opening, such as door-panels, (the panel being removed to form an opening therefor.) They may also be used in the window-opening, or wherever screened ventilation is suitable and occasional opening for vision is desirable.

My invention consists in a series (or any desired number) of perforated or otherwise apertured slats hung by means of suitable pivots (formed with the slat or attached thereto) to a frame capable of being readily attached to or within any suitable opening, particularly the "stiles" of blinds or doors, and removed therefrom whenever desired without injury to any part.

It further consists of moving mechanism, in combination with the portable frame, before mentioned, and the slatted screen therein, whereby the slats may be opened and closed at pleasure and secured in either position. The slats, when closed together, form a slatted screen, the object being to admit of ventilation to the exclusion of mosquitoes, flies, and other insects, and to considerable extent dust, and the effects of storms, wind, rain, hail, snow, &c.; when used in railroad-cars, cinders and smoke. They are applicable to dwellings, stores, factories, churches, theaters, &c.; also railroad-cars, stages, carriages, and marine vessels. They may be inserted into openings and arranged to be slid up, down, or sidewise out of the way, if desired, and when in the opening the slats may be rocked open to permit of free vision.

In the accompanying drawings, Figure 1 represents a perspective view of the slatted screen, with its frame secured to a window-blind, the near end in section, the blind being of the ordinary pattern with the common wooden slats, all the slats shown closed. Fig. 2 is a vertical section of the same, the blind-slats open and the screen-slats closed in position for screened ventilation. Fig. 3 is a similar vertical section, showing all the slats open, permitting of free vision downward. Fig. 4 is a similar vertical section showing all the slats open, permitting of free vision upward and ingress of light from above. Fig. 5 is an inside face elevation of the same blind with slatted screens attached. Fig. 6 is a side elevation of the moving mechanism, giving in section the pivots in connection. Fig. 7 is a face-plate, hereinafter described, slotted to enable the sliding bar of the moving mechanism to be locked, as desired.

In the drawings, A represents the frame of the screen. This may be made of any suitable material, preferably metal, and secured to any suitable place by screws, bolts, &c.

B represents the parts of the blind-framework, to which the frame of the screen is shown attached.

a represents the slats, perforated or otherwise apertured, forming the ventilating-screen. These also may be made of any suitable material; but I prefer metal.

c represents pivots by which they are hung to their frame. The pivots may be formed by a roll in the metal extending sidewise, or cast of metal and attached to the slats, or formed as a part of the frame and inserted into a pivot-roll formed in the slat.

b represents the slats of the blind, to which the portable screen is attached. When applied to such a blind, the slats of the screen do not interfere with the free movement of the blind-slats, but, as the drawings, Figs. 3 and 4, show, may be moved so as to co-operate therewith in obtaining the result desired; and each set of slats (blind and screen) may be operated independently at will.

No change is required in any part of the blind or blind-slats to receive the screen, the rod of the blind-slats being operated from below through an opening left in the screen-frame or by other means.

The ventilating-screen, being portable and complete in itself, may be used in summer only and laid away in winter; and it is readily applied to other places—such as door-panels, head-lights to doors, window-openings, (where there are no blinds,) car-windows, openings made for ventilation merely, and any

other suitable places. I do not confine myself to size or shape, or any peculiar form of frame or slat, as such may be made to suit circumstances and place of use. They may also be molded into ornamental shapes. The number of apertures in the slats is also immaterial, so long as they are large enough for air-passages and sufficiently small to serve as a screen for the purpose described.

The moving mechanism is shown in Fig. 6. The pivots of the slats *c* are attached to cogged brackets *e*, engaging with a cogged sliding bar, *d*, so that as the bar *d* is moved upward or downward the brackets *e* are moved, rocking the slats to which they are attached. A knob is shown attached thereto for handling. In Fig. 7 is shown a face-plate screwed or otherwise secured to the frame A, having a vertical slot with three side cuts. The stem of the knob connected to the sliding bar *d* passes through this vertical slot, and a sidewise movement carries it into either of the side cuts desired, locking the sliding bar at the height required. By this means the slats may be thrown to the several positions shown in Figs. 1, 2, 3, and 4. The sliding bar may be placed inside the frame A, or outside, and connected in any suitable manner.

I do not confine myself strictly to the method shown for moving the slats, as other means may be used.

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

1. A portable screen consisting of a series of perforated (or otherwise apertured) slats pivoted to a frame and adapted to fill or cover an opening and be readily removable therefrom, as desired, the slats capable of being rocked open to admit of free vision, substantially as shown and described.

2. A portable panel consisting of perforated slats pivoted to a flanged frame, each slat touching its neighboring slat, so as to form, when closed, a continuous slatted screen, and the set adapted for opening simultaneously by operative mechanism, essentially as shown and described.

3. A portable frame adapted for attachment to suitable openings, as herein set forth, so as to be readily removable therefrom when desired, containing a set of perforated (or otherwise apertured) slats hung therein, so as to form, when closed, a continuous ventilating-screen, the slats adapted for opening, essentially as shown and described.

4. The portable metallic frame A, containing the perforated (or otherwise apertured) screen-slats *a*, and suitable moving mechanism for rocking the slats, essentially as shown and described.

GEO. HAYES.

In presence of—
JACOB J. KOCH,
CHARLES HAYES.