

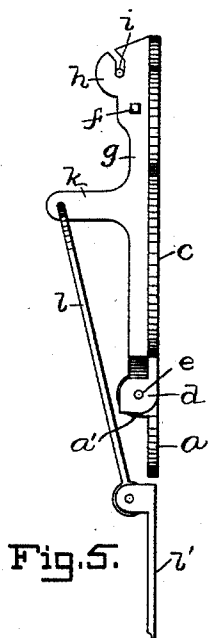
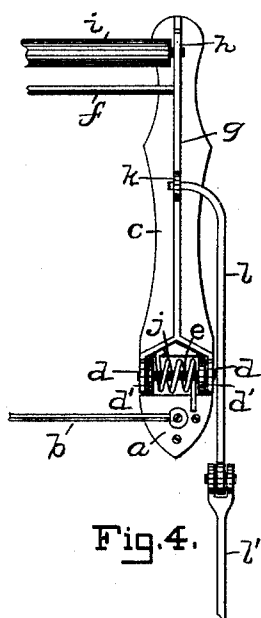
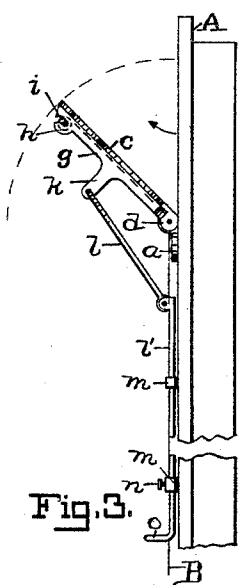
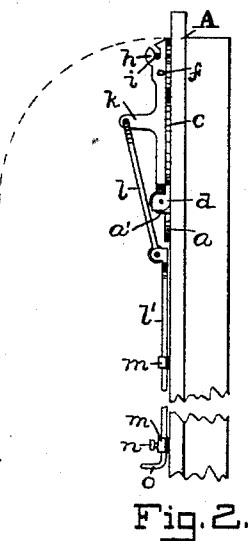
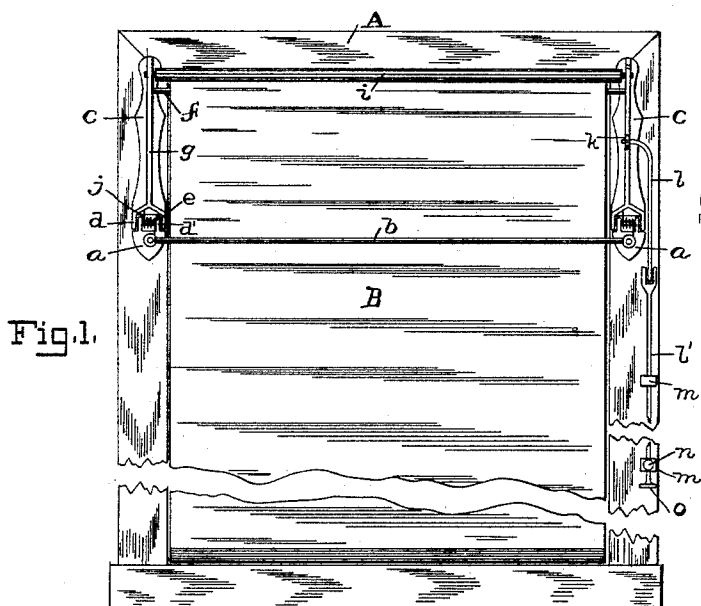
(No Model.)

2 Sheets—Sheet 1.

J. Q. A. SAND.
VENTILATING CURTAIN FIXTURE.

No. 468,286.

Patented Feb. 2, 1892.



WITNESSES:

Otto H. Ehlers.
J. P. Davis

INVENTOR:

John Q. A. Sand,

BY Chas B. Mann
ATTORNEY.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 6.

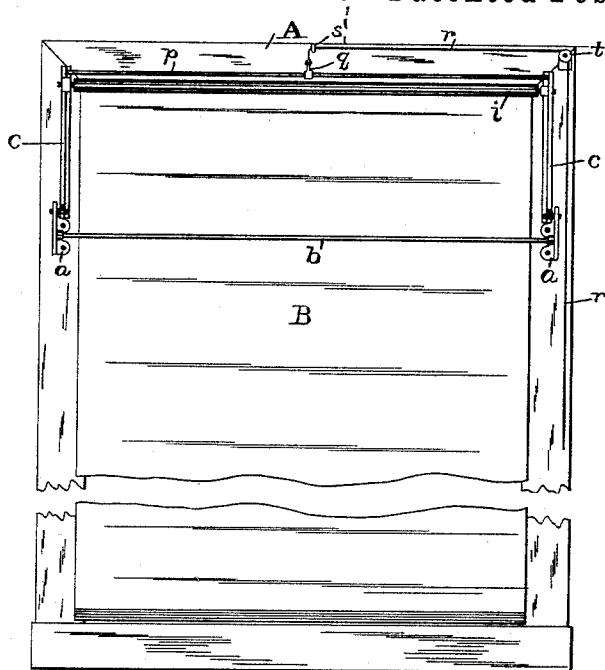


Fig. 7.

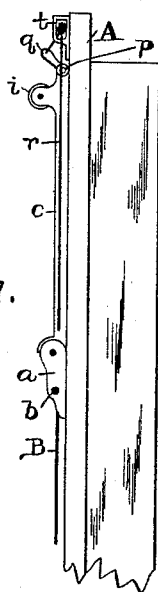
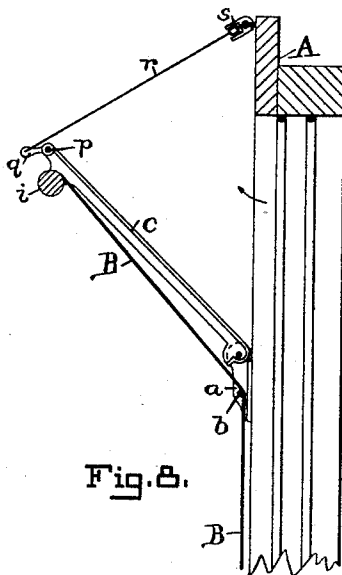


Fig. 8.



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UNITED STATES PATENT OFFICE.

JOHN Q. A. SAND, OF BALTIMORE, MARYLAND, ASSIGNOR OF TWO-THIRDS
TO DAVID M. PATTERSON AND MILLARD B. LAWRENCE, OF SAME PLACE.

VENTILATING CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 468,286, dated February 2, 1892.

Application filed July 11, 1891. Serial No. 399,173. (No model.)

To all whom it may concern:

Be it known that I, JOHN Q. A. SAND, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Ventilating Curtain-Fixtures, of which the following is a specification.

This invention relates to an improvement in curtain-fixtures, the object being to provide for ventilation through the top of a window while the curtain remains down.

To this end the invention may be said to consist in the novel features of construction and combinations of parts hereinafter described and claimed.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a front view of a window-frame and curtain with my improved fixture; Fig. 2, a side view of the same; Fig. 3, a similar view showing the top part of the curtain let down for ventilation; Figs. 4 and 5, detail views; Figs. 6 and 7, corresponding views to Figs. 1 and 2, illustrating a modified construction of operating mechanism; Fig. 8, an enlarged section taken on line 8 8 of Fig. 6 with the top part of the curtain let down.

The letter A designates the window frame or casing, and B the curtain.

In carrying out my invention I provide a frame for attachment to the window-casing, comprising a pair of plates *a*, secured in suitable manner to the opposite sides of said casing, and having a rod *b*, connecting them and extending across the curtain on the inside of the same. An arm *c* is jointed to each of the plates *a* by means of suitable joint-ears *d* *d'* and a pivot-pin *e*, and the upper ends of these arms are connected by a rod *f*, which extends across the outside of the curtain. The said arms *c* are made with longitudinal webs *g*, which at the upper end of the arms constitute bearings *h* for the curtain-roller *i*. At the joint of each arm *c* to the plate *a* a spring *j* is placed on the pivot-pin *e*, with its ends bearing against the plate and arm, respectively, and holds the latter up against the window-casing. The joint-ears *d* on the arm *c* have straight under edges *a'*, which constitute shoulders to abut against the plate and limit the downward movement of the arm, so

that it cannot be brought below a horizontal position. One of the jointed arms *c* has a projecting stud *k*, to the end of which is jointed a rod *l*. This rod is in turn jointed to a vertical sliding rod *l'*, which works through keepers *m*, secured to the window-casing, the lower one of said keepers having a set-screw *n* to lock the sliding rod, and said rod having a suitable handle *o* at its lower end.

From the above description it will be obvious that upon pulling down the sliding rod *l'* the arms *c* will be lowered on their joints and carry down or tilt forward the curtain-roller, the curtain turning down over the rod *b*. In this way an opening is provided for air to enter through the upper part of the window, and the arms may be fixed at any angle to allow a greater or smaller opening by setting the screw *n*, and thereby locking the rod *l'* at the desired adjustment. It will be observed that while the upper part of the curtain is thus lowered, the lower part below the rod *b* is not affected in any way and is held close to the window-casing by said rod. When the sliding rod *l'* is released, the springs *j* return or raise the arms against the casing and the curtain to its normal position. It will be seen that my fixture will not in any way interfere with the usual up and down movements of the curtain.

Instead of the sliding rod, a cord may be connected to the transverse rod *f*, and may attach to some suitable locking device, whereby it may be held when drawn down to lower the curtain-top.

In the modified construction illustrated in Figs. 6, 7, and 8, the rods and also the springs are dispensed with, and the hinged frame and the roller lower by their own weight. In this case, a rod *p* connects the upper ends of the jointed arms above the curtain-roller bearings, and has a short arm *q* attached to it and projecting out over the roller. To the end of this arm *q* is attached a cord *r*, which runs through a pulley *s* at the upper part of the window-casing, and thence laterally to and through a locking-pulley *t*. When the frame is to be lowered, the said cord is released in the locking-pulley and the frame drops by its own weight and the weight of the curtain-roller. The latter, being in a forward posi-

tion, will cause the frame to drop readily. The frame may be adjusted and held at any angle by drawing the cord through the pulleys and locking it in the locking-pulley *t*.

5 The advantages of the invention will be manifest, as it enables the top part of the curtain to be lowered to open a space through which ventilation may be had without otherwise disturbing the curtain, and an opening
10 may be had of the extent desired by adjusting the jointed arms. By fixing the top portion of the curtain on an incline, the draft of air entering through the opening may be directed into the top of the room to avoid its coming
15 down on top of the head.

It will be evident that the construction herein described may be varied in many particulars without departing from the invention, and therefore I do not confine myself to such
20 construction, but consider myself entitled to all such changes as come within the spirit and scope of the invention.

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

1. In combination, two plates *a* and *a*, each provided with perforated ears *d d* and adapted to be secured to the window-casing, a spring-actuated arm hinged to each plate, the hinged
30 ends of which arms are each provided with perforated ears having straight under edges

a' for engaging with the plates and limiting the outward and downward movement of the arms, two rods *b* and *f*, connected with the plates and arms, respectively, a curtain-roller
35 journaled in the outer ends of the arms, and a longitudinally-movable jointed rod for operating the device, substantially as described.

2. In combination, two plates *a a*, each provided with perforated ears *d d* and adapted
40 to be secured to a window-casing, an arm *c*, pivotally secured to each plate, having a longitudinal web *g* and two perforated ears *d' d'* at its hinged end, the upper end of each of said ribs being formed into a bracket and one
45 of the webs being provided with a projecting stud *k*, a pintle through the perforated ears of each plate and arm, a spring on each pintle engaging with the plate and arm, two rods, one of which is connected with the plates and
50 the other one with the arms near the brackets, a roller in the brackets, and a jointed longitudinally-sliding rod engaging with the stud upon one of the arms for operating the device, substantially as described.

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

JOHN Q. A. SAND.

Witnesses:

JNO. T. MADDUX,
F. P. DAVIS.