

S. AVERY.

APPARATUS FOR OPERATING WINDOW BLIND SLATS.

No. 8,045.

Patented Apr. 15, 1851.

Fig: 1.

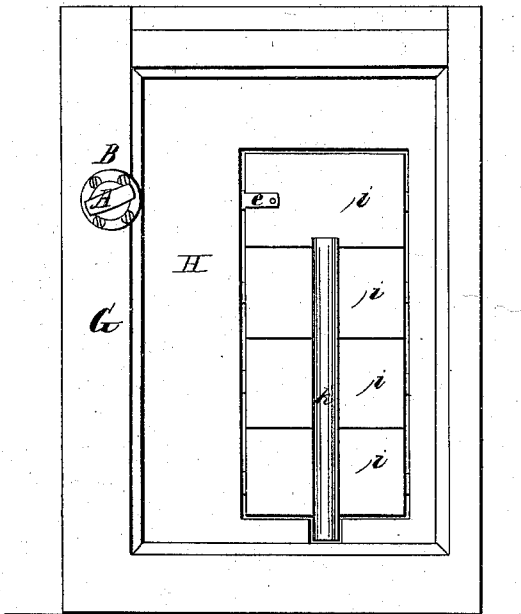


Fig: 2.

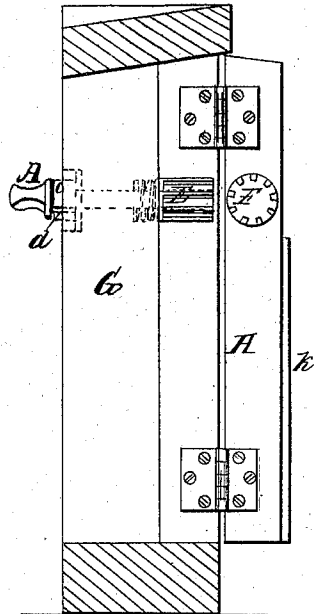


Fig: 3.

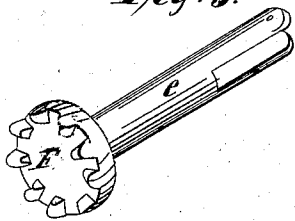


Fig: 4.

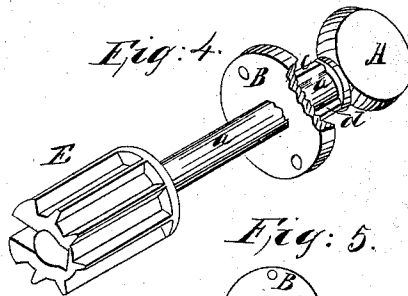
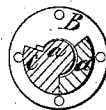


Fig: 5.



UNITED STATES PATENT OFFICE.

SAM'L AVERY, OF PHOENIX, NEW YORK.

APPARATUS FOR OPERATING WINDOW-BLIND SLATS.

Specification of Letters Patent No. 8,045, dated April 15, 1851.

To all whom it may concern:

Be it known that I, SAMUEL AVERY, of Phoenix, in the county of Oswego and State of New York, have invented a new and useful Improvement in the Manner of Opening, Closing, and Fastening in any Desired Position the Slats of Window-Blinds; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, Figure 1 being a side elevation of a window-frame with a blind placed therein; Fig. 2, a sectional drawing cut through the center of the top and bottom of the window-frame, showing an elevation of the inner side G of one of the sides of the frame and the inner edge of the side H of the blind hinged thereto. Figs. 3, 4, and 5 are views of the operating apparatus detached from the said window frame and blind.

Similar letters indicate like parts in all the figures.

The inner edge H, of the window blinds are hinged to the sides of the window frame, and shut into rabbets therein in the usual manner. The slats *i, i*, of each blind are supported by pivots projecting from the centers of their extremities into apertures in the sides of the blind, and are all connected to each other by means of a bar *h*, which is hinged to the inner edge of each slat. A spindle *e*, is inserted through a hole in the inner edge H of the blind, which spindle is connected to the end of one of the slats *i*, and forms the bearing journal of the same. The spindle *e*, has a cog wheel F, secured to its outer end, which is let into a recess in the edge of the blind. It will thus be perceived, that by turning the spindle *e*, upon its axis, motion will thereby be imparted to the series of slats *i, i*, upon their axes. A spiral spring (not represented) is placed upon the spindle *e*, within the aperture in the side H, of the blind, for the purpose of so acting upon the said spindle as to cause the series of slats (*i, i*) to be firmly closed and pressed against each other when they are not otherwise operated upon.

A spindle *a*, is inserted into suitable bearings within a perforation in the side G, of the window frame; E, is a cog wheel placed upon the inner end of the spindle *a*, the teeth of which are of unusual length and project through an opening in the rabbet in the side

of the window frame, and match into the teeth on the face of the cog-wheel F, upon spindle *e* when the blind is closed; the said teeth being of sufficient length to pass entirely across the face of the cog-wheel F, and to match into the teeth on opposite edges of the same. B, is an escutcheon secured to the side of the window frame or casing, through the opening in which the spindle *a* passes; a guard *a*, projects from the edge of the opening in the escutcheon—as shown in Figs. 4 and 5—and a corresponding guard projects from the periphery of the spindle *a*; which guards limit the movement of the said spindle to a semi-revolution. A helical spring is placed upon the spindle *a*, within the perforation in the side of the window frame, which serves the double purpose of forcing the said spindle inward, and of turning it upon its axis so as to keep its guard *c*, firmly pressed against the guard *d*, upon the escutcheon (B) when the said spindle is not otherwise acted upon. A, is a knob upon the end of the spindle *a*, by means of which the said spindle is operated.

The manner of opening the slats of the blinds, and fastening them in any desired position by my improved apparatus, above described, is as follows: When a window blind is closed, the teeth of the cog wheel E, match into the teeth on opposite edges of the cog wheel F, thereby preventing the spindle *e*, from being turned upon its axis and securely fastening the slats *i, i*, in their closed position. By withdrawing the spindle *a*, a sufficient distance to prevent the teeth of the cog wheel E, from matching into the teeth on the farther side of the cog-wheel F, and imparting a semi-revolution to the said spindle, a movement will thereby be imparted to the cog wheel F, and to the spindle *e*, which will throw the sides of the slats *i, i*, into a horizontal position and parallel with each other; then by pushing the spindle *a* back into its original position, the teeth of the cog wheel E, will again match into the teeth on opposite edges of the cog wheel F, and retain the slats in the aforesaid open position. Any other position may be given to the slats of the blind by a partial movement of the spindle *a*, upon its axis, after drawing is forward a short distance—as above set forth.

I am aware that cog gearing has been

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employed for the purpose of operating window blind slats from the interior of a building, I therefore do not claim such device in general; but

5 What I do claim as my invention and desire to secure by Letters Patent, is—

Making the cog wheel E, with such a length of teeth that when its spindle is forced outward by the spring, they shall
10 engage with the teeth on both sides of the cog wheel F, thereby locking the same and

securing the slats in any desired position substantially as herein described.

The above is a specification of my improvement in the manner of opening, closing and fastening the slats of venetian window blinds and doors. Signed this 27th day of February 1851.

SAMUEL AVERY.

Witnesses:

T. R. DUTCHER,
H. M. AVERY.