J. PEYER.

Window-Blinds.

No. 163,690. Patented May 25, 1875.

Fig: 4.

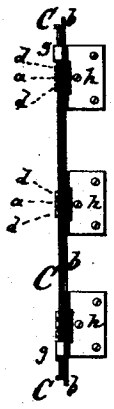


Fig: 3.

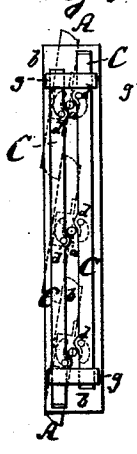


Fig: 2.

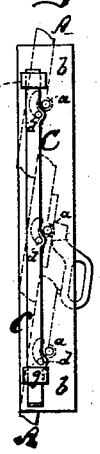


Fig: 1.

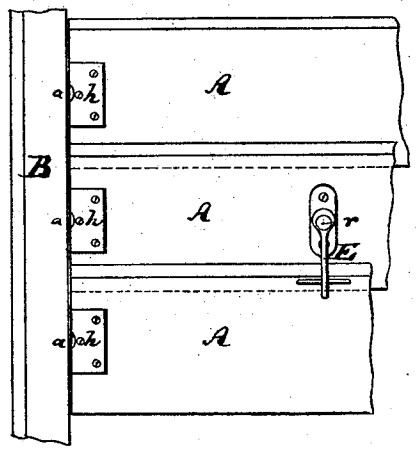


Fig: 5.

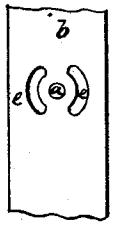


Fig: 8.

Fig: 7.

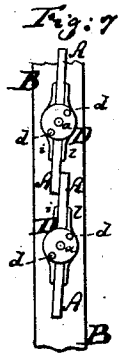


Fig: 6.

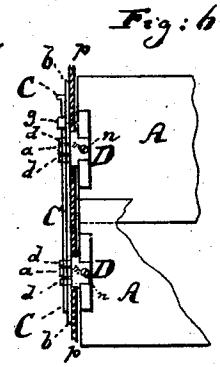
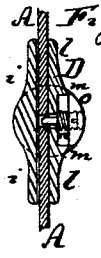


Fig: 9.

Fig: 10.



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UNITED STATES PATENT OFFICE.

JOHANN PEYER, OF WÄHRING, (NEAR VIENNA,) AUSTRIA, ASSIGNOR TO JOSEPH R. VON WESSELY, OF NEW YORK, N. Y.

IMPROVEMENT IN WINDOW-BLINDS.

Specification forming part of Letters Patent No. **163,690**, dated May 25, 1875; application filed August 6, 1874.

To all whom it may concern:

Be it known that I, JOHANN PEYER, of Währing, (near Vienna,) in the Empire of Austria, have invented a new and useful Improvement in Window-Blinds, of which the following is a specification:

This invention has for its object to so connect the slats of a window-blind that they will always remain in the position into which they may be swung, and not be readily displaced by wind or by their own weight; and it consists, first, in attaching to each of the slats constituting the blind, at one of its ends, a pin, eccentric to its gudgeon on such end, and in connecting such eccentric pins to a metal bar which is concealed within the frame of the blind, and which is perforated at intervals to receive such pins, so that the several slats will always be parallel to each other.

My invention further consists in providing the face-plate or fillet that lines the inner edge of the blind-frame at one end, and to which the gudgeons of the several slats are pivoted, with arched slots, to allow the eccentric pins, which are fastened to the slats at such end, to pass through and freely move within such arched slots, all as will hereinafter be more fully described.

In the accompanying drawing, Figure 1 represents a face view of portion of a window-blind having my improvement. Fig. 2 is an edge view of the same, part of the frame being removed. Fig. 3 is a similar view of a blind, having double rod-connection for the slats. Fig. 4 is a detail face view of the devices used for connecting the slats. Fig. 5 is a detail face view of part of the face-plate applied to the frame. Figs. 6, 7, 8, 9, and 10 are detail views of modifications of the invention applied to blinds having glass slats. Fig. 11 is a side view, and Fig. 12 a front view, of the slat-handle.

Similar letters of reference indicate corresponding parts in all the figures.

A A in Fig. 1 are the slats; B, the wooden frame of a window-blind. Each slat has at each end a projecting gudgeon, *a*, whereby it is pivoted at one end in a metallic fillet, *b*, that lines the inner edge of the frame B, and at the other end in the frame B direct. From one end of the slat projects also another pin, *d*, through an arched slot, *e*, of the fillet *b*. Behind the fillet *b* is concealed in the frame B a rod or bar, C, which extends lengthwise along the inner face of the fillet *b*, and which is perforated at proper intervals to receive the pins *d* of the several slats, as is clearly indicated in Fig. 2. The rod C connects thus all the slats, and causes them all to be parallel to each other in whatever position they may be placed. When one of the slats is turned on its gudgeons, all the others must follow suit. A spring, *f*, indicated in Fig. 8, bears against the rod C, to hold it in position, and prevents the slats from dropping of their own accord into the closed position. The ends of the rod C may be guided in eyes *g g* that project inwardly from the fillet *b*. The pin *d* may be driven into the slat, but I prefer to secure it to a plate, *h*, that is screwed to the slat, and from which the gudgeon also projects; for, by this means, I insure the requisite equal distance apart of the pins *a* and *d* on all the slats.

It will be observed that, by this construction of slats and frame, the pins *a* are the pivots on which the slats turn, while the pins *d* constitute cranks, which may play loose in the curved slots *e*, and connect properly with the rod C. The gudgeons *a* do not extend into the rod C.

For blinds having very heavy slats, I may use two pins, *d*, on each slat, as shown in Figs. 3 and 4, and two rods, C C, as shown in the same figures. The operation will, with this construction, be the same as where but one pin, *d*, and rod, C, are used, except that greater stability is obtained.

Blinds of my improved construction can be used on dwellings and stables; also, on shops, &c. For stables, I prefer to arrange the slats in vertical position, and to make them of strong glass. But, in order to use glass slats, it is necessary to devise a clamp for connecting them with the gudgeons and crank-pins, &c. Such a clamp, D, is represented in Figs. 6, 7, 9, and 10. It is composed of two jaws, *i* and *l*, between which the end of the slat is confined. The jaw *i* is rigidly attached to and projects from one face of a disk, *m*, on the op-

posite face of which the projecting-pins *a d d* are arranged. A screw, *n*, extends through a projecting ear, *o*, of the disk *m*, toward and through the loose jaw *l*. The glass slat has its end perforated to receive the end of the screw *n*. Now this screw has its threaded outer portion made thicker than its non-threaded inner portion, as shown in Fig. 10. Its threaded portion works in the ear *o*, and serves also as a head to crowd the jaw *l* against the slat, the smaller end of the screw meanwhile passing through a hole in the jaw *l* into the slat, as shown, as a further safeguard. In order to bring the ends of the slats close to the frame B, and prevent draft when the slats are closed, the disk *m* is sunk into a plate, *p*, which is applied against the inner side of the frame B, and made with apertures large enough to receive the disks *m* from the several slats.

E is a handle pivoted to the inner face of one of the slats, and arranged so that it can be turned on its pivot *r*. When the slats are closed, and the handle is turned downward, as in Fig. 1, it laps over the upper part of the next lower slat, and constitutes thus a lock for all the slats, preventing unauthorized persons absolutely from turning these slats from the outside.

I claim as my invention—

1. In a Venetian blind or shutter, the slat A, provided with the pin *d* eccentric to the gudgeon *a*, in combination with the fillet *b*, having curved slot *e*, and rod C, substantially as and for the purpose hereinbefore described and set forth.

2. The clamp D, made with the pins *a d*, disk *m*, jaws *i l*, and screw *n*, the screw having its outer part larger than the inner, substantially as herein shown and described.

The above description of my invention signed by me this 15th day of July, 1874.

JOHANN PEYER.

Witnesses:

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WILLIAM HÜNING.