(No Model.) 2 Sheets—Sheet 1.

F. W. WRIGHT.

BLIND SLAT AND OPERATING ROD.

No. 385,689. Patented July 3, 1888.

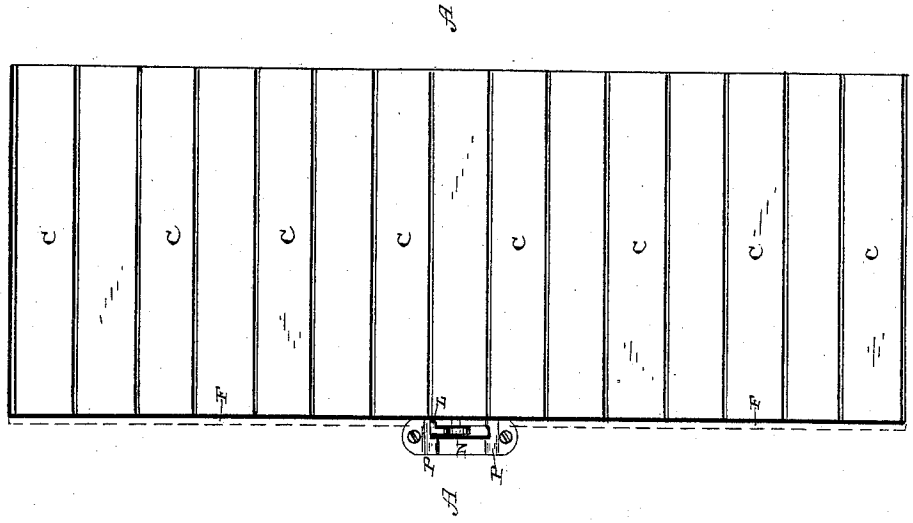


Fig. 2.

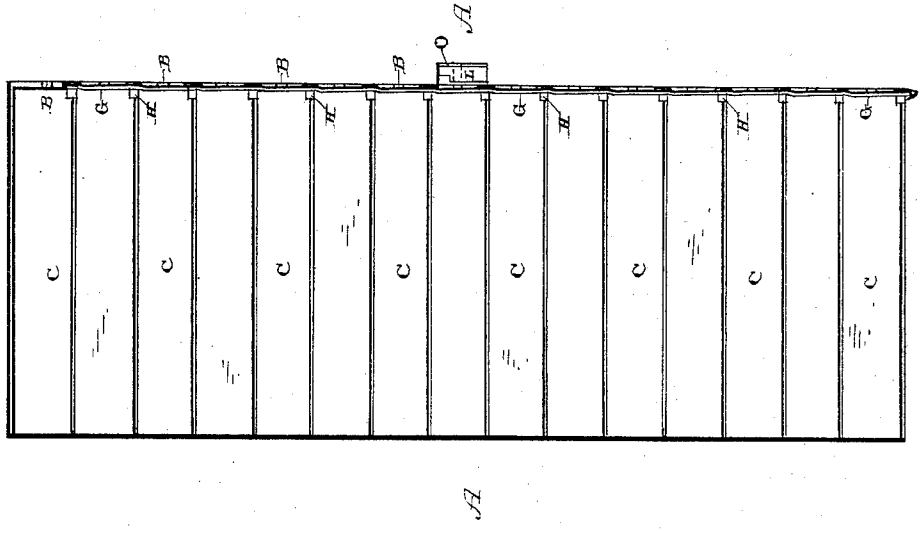


Fig. 1.

Witnesses.
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Edm. P. Ellis.

Inventor.
F. W. Wright,
per C. E. Allen, atty

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

F. W. WRIGHT.

BLIND SLAT AND OPERATING ROD.

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Fig. 4.

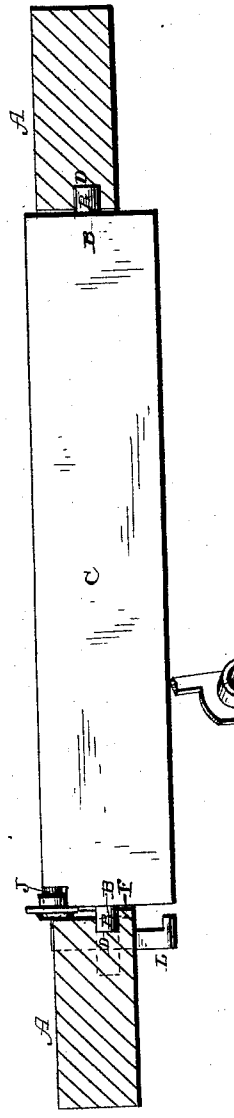


Fig. 5.

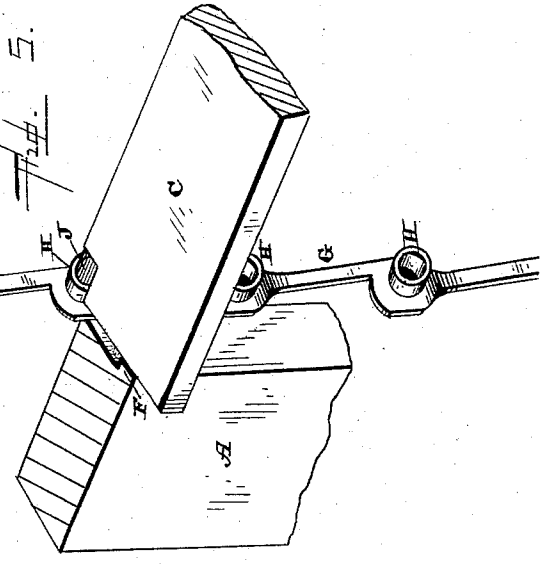
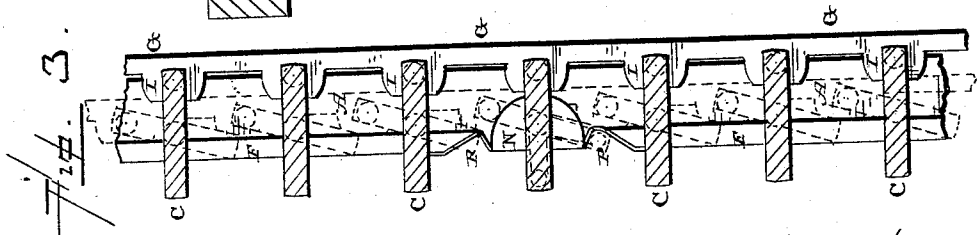


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANK W. WRIGHT, OF BURLINGTON, VERMONT.

BLIND-SLAT AND OPERATING-ROD.

SPECIFICATION forming part of Letters Patent No. 385,689, dated July 3, 1888.

Application filed December 9, 1887. Serial No. 257,439. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. WRIGHT, a citizen of the United States, residing at Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Blind-Slats and Operating-Rods, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in blind-slats and operating-rods; and it consists in, first, the combination of a thin operating-rod loosely connected to the corresponding ends of each slat by means of eyelets, which are passed through the rod and which catch over lugs formed upon the outer corners of the slats, with the slats provided with tenons upon their ends and the blind-frame; second, the combination of a thin bent operating-rod, eyelets which are passed through openings in the rod, and the blind-slats provided with lugs to catch in the eyelets and tenons to catch in the frames, the rods being bent so as to cause sufficient friction upon the slats to hold them in any desired position; third, the combination of the blind-frame having a flange formed along the outer edge of one of its sides, the slats which are journaled in the frames by means of tenons formed on their ends, a thin operating-rod which sinks into the frame when the slats are closed behind the said flange, and an operating-lever which is recessed in the frame, as will be more fully described hereinafter.

The objects of my invention are to so construct the movable parts that when they are in a closed position they will not project beyond the edges of the frame and thus take up unnecessary room in packing them for transportation, to enable the blinds to present a more uniform and attractive appearance, and to allow the blind to be made much thinner and lighter than it otherwise could be and therefore better adapted for sliding into a pocket or for other modern expensive interior finish.

Figures 1 and 2 are side elevations of a blind embodying my invention, taken from opposite sides. Fig. 3 is a vertical section taken through the center of the slats. Fig. 4 is a section taken at right angles to Fig. 3. Fig. 5 is a perspective of the end of one of the slats C and its attachments.

A represents the frame, which has the usual holes or recesses bored in opposite inside edges to receive the tenons B upon the slats C. These holes D are bored as far as possible from the outside edge, so as to cause the slats when closed to sink inside of the frame on its outside edge and be just flush with its inside edge, and thus not take up any unnecessary room in packing the blinds for transportation or in any other position. Where the slats do project beyond the edges of the frames, separating devices must be placed between the blinds when packed for transportation, which takes up nearly as much room as the blinds and thus adds greatly to the cost of transportation and the expense and trouble in packing.

Formed upon the inside edge of that side of the frame upon which the operating rod and lever are placed is a narrow flange, F, which serves both to close the spaces between the side of the frame and the ends of the slats and to form a recess into which the thin operating-rod G sinks when the blinds are closed in either direction. This flange serves to hide the operating rod from sight upon the inner side of the blind and to give to the blind a much more finished and elegant appearance than is possible where the operating-rod is applied either in the usual manner or where it is necessary to give the rod a greater thickness than a thin metallic plate, as in the present instance.

The operating-rod G consists of a thin metallic plate, which is widened just opposite where it is connected to each slide, and through these widened portions I are passed the eyelets H, which catch upon the lugs J, formed upon the outer corners of the slats. After the tenons have been formed upon the ends of the slats, the lugs are formed in any suitable manner, and these lugs do not project beyond the ends of the slats proper.

The operating-rod, instead of being made perfectly straight in the usual manner, is given a slight bend in between the ends of the slats, so as to have its bent portion catch between the head upon the eyelet H and end of the slat, as shown in Fig. 5, and thus exert a frictional contact upon these two parts sufficiently great to prevent the rod from causing the slats C to turn upon their pivots from the weight of the rod alone, and thus cause the slats to

partially close whenever they are left free to move. When the operating-rod is made perfectly straight, it exerts but little or no frictional contact upon the eyelets and the ends of the slats, and hence the weight of the rod alone is usually sufficient to prevent the slats from remaining open. By bending the operating rod just at that point where it is made to come in contact with the eyelets H and slats C enough friction is exerted upon these two parts to prevent the weight of the rod from moving the slats.

The operating-lever L is journaled in a metallic frame, N, which is placed in a recess, O, made in the inner edge of that side of the frame which is provided with the flange, and the outer end of this lever is provided with a projection which passes through one of the eyelets in the operating-rod, and thus makes direct connection with the slats. The inner end of the lever is made just long enough to operate the slats readily and easily, and has its end to sink into recesses P, made in the inner side of the frame, when the slats are closed in either direction. Where the end of this lever projects beyond the side of the frame, it is not only in danger of being broken, but it takes up unnecessary room when the blinds are packed for transportation. Where the slats close down within the frame, the operating-rod sinks into a recess in the side of the frame, and the operating-lever also has its inner end to sink into recesses. The frames can be placed in direct contact with each other in being packed for transportation, which could not otherwise be done.

By the construction above described I avoid all objections to the ordinary slat-turning rods, which are exterior to the slats, being secured to their front edges and projecting therefrom, where they are liable to accident, and which greatly increases the thickness of the blinds. This construction also enables a more uniform and attractive appearance to be given to the blinds, and allows them to be made much thinner and lighter than otherwise could be.

Having thus described my invention, I claim—

1. The combination of the frame A, having the vertical flange F formed along one of its inside edges, the slats which are pivoted in the frame and provided with pivots B and the lugs J, the operating-rod which is connected to each of the slats by means of the lugs J, and which is placed between the ends of the slats and one side of the frame A, whereby when the blinds are closed the operating-rod is moved into the frame in the rear of the flange F, so as to be hidden from view from the inner side of the blind, substantially as described.

2. The combination of the frame, the slats provided with tenons upon each of their ends and with lugs upon one end, the operating-rod, and the eyelets which catch over the lugs and connect the slats to the rods, substantially as set forth.

3. The combination of the slats provided with both tenons and lugs, the eyelets which catch over the lugs, and the operating-rod which is slightly bent between the eyelets, so as to cause frictional contact against them, substantially as specified.

4. The combination of the frame A, provided with a recess, O, in one of its edges, the metallic frame N, placed in the recess and provided with recesses P at each end, the operating lever L, the rod G, the eyelets, and the slats provided with both tenons and lugs, substantially as specified.

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

FRANK W. WRIGHT.

Witnesses:
CHARLES E. ALLEN,
GEORGE D. WRIGHT.