

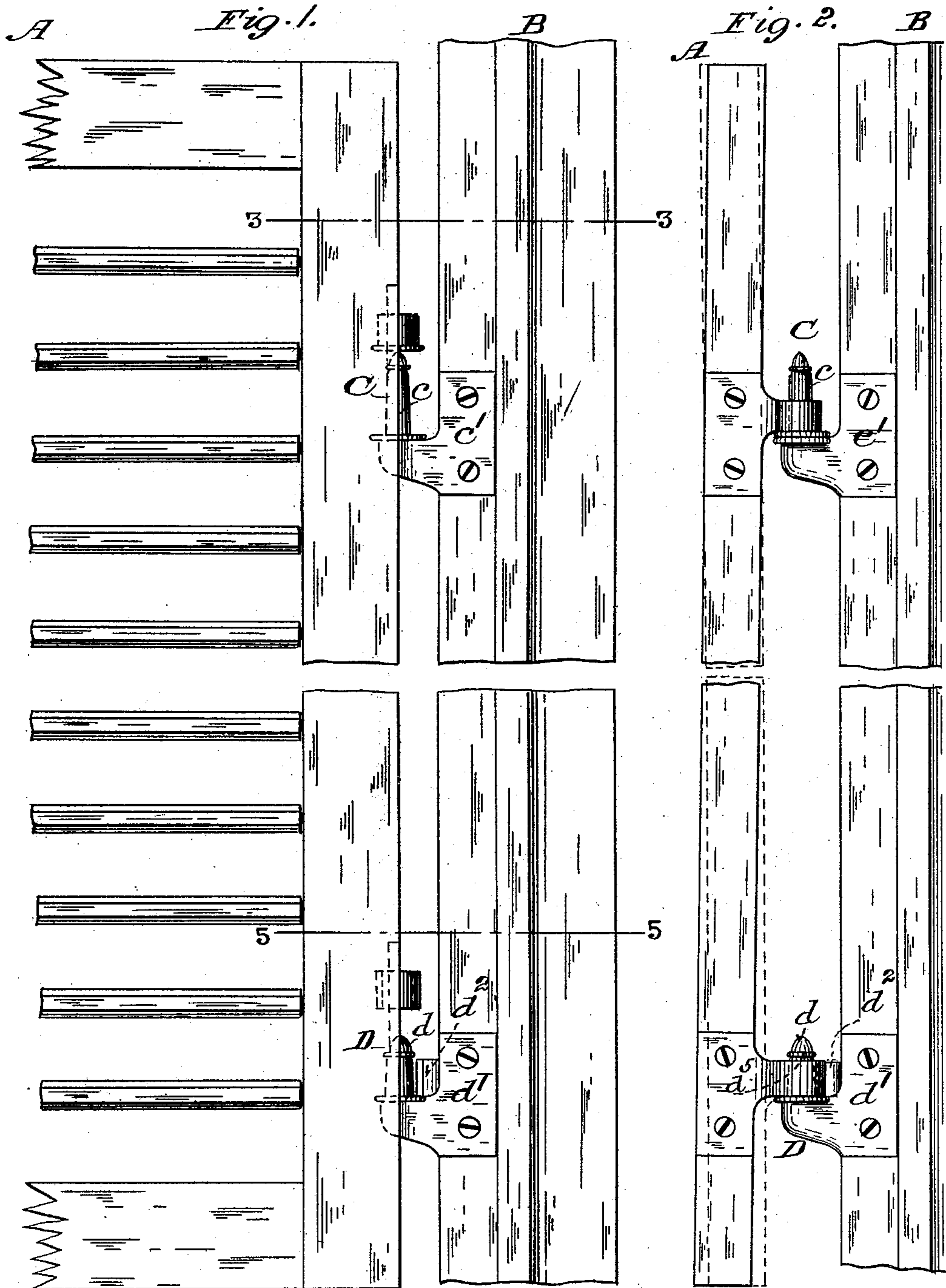
(No Model.)

2 Sheets—Sheet 1.

C. E. GILLESPIE.
LOCK HINGE.

No. 484,361.

Patented Oct. 11, 1892.



WITNESSES
Edward W. Turner
A. Bonville

INVENTOR
Cyrus E. Gillespie
by C. B. Moody his atty

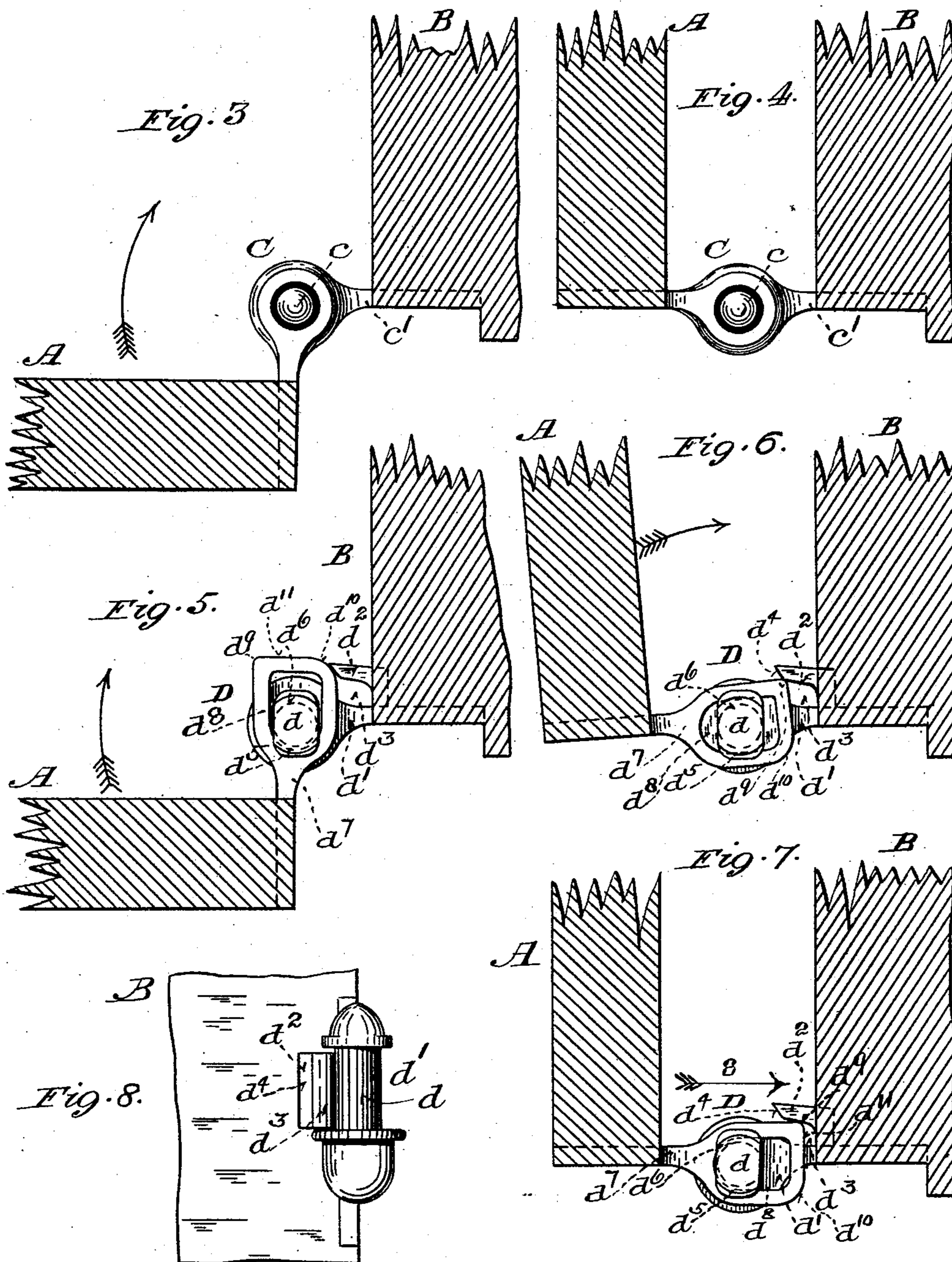
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Edward W. Funnell
A. Bonville

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UNITED STATES PATENT OFFICE.

CYRUS E. GILLESPIE, OF EDWARDSVILLE, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO CHARLES E. TINDALL AND CHARLES S. GILLESPIE, OF SAME PLACE.

LOCK-HINGE.

SPECIFICATION forming part of Letters Patent No. 484,361, dated October 11, 1892.

Application filed May 31, 1892. Serial No. 435,061. (No model.)

To all whom it may concern:

Be it known that I, CYRUS E. GILLESPIE, of Edwardsville, Illinois, have made a new and useful Improvement in Hinges, of which the following is a full, clear, and exact description.

The improvement relates more especially, but not exclusively, to blind-hinges.

It consists mainly in the improved means for locking the blind or whatever analogous part the hinge in question is applied to in its open position, substantially as is hereinafter set forth and claimed, aided by the annexed drawings, making part of this specification, and in which—

Figure 1 is an elevation showing a blind in position to be hung with the improved hinge. Only that portion of the blind and window-frame is exhibited which is essential to an understanding of the improvement. The blind is shown raised above the hinge parts attached to the window-frame, as when it is about to be lowered into its final position thereon. Fig. 2 is another elevation of the blind and window-frame, the blind being hung and swung nearly open, but not into its locked position; and Figs. 3 to 7, inclusive, details upon an enlarged scale, Fig. 3 being a horizontal section upon the line 3 3 of Fig. 1 of the blind hung; Fig. 4, a similar section, the blind being swung entirely open; Fig. 5, a horizontal section upon the line 5 5 of Fig. 1 of the blind hung; Fig. 6, a section upon the same line, the blind being nearly opened but not into its locked position; Fig. 7, another section on the same line, but showing the blind entirely opened and locked; and Fig. 8, an elevation showing the hinge part of the lower hinge, which is attached to the window-frame, the view being in the direction of the arrow 8, Fig. 7.

The same letters of reference denote the same parts.

The blind A and the window-frame B are of the usual description. The upper hinge C is also of the customary form, saving that the pintle *c* of the hinge part *c'* upon the window-frame is preferably made somewhat longer than is the pintle *d* of the lower hinge D. The lower hinge differs, essentially, from previous constructions in the following respects:

The hinge part or leaf *d'*, which is attached to the window-frame, while in other particulars resembling the form ordinarily in use, is provided with or has associated with it a part *d²*, which projects outward from the window-frame and is shaped and arranged, substantially as shown, to leave a space *d³* between the projection and the hinge-leaf proper *d'* into which a corner of the complementary hinge part is received when the blind is in a locked position. The part *d²* may be integral with the hinge part *d'* or a separate part alongside it. The outer edge *d⁴* of said projection is preferably beveled, substantially as shown. The pintle *d* of the hinge part *d'* at or toward its upper end is also preferably provided with a lateral projection *d⁵*, and said projection is preferably extended upon opposite sides of the pintle, substantially as shown at *d⁵ d⁶*, and for a purpose hereinafter described. The other hinge part or leaf *d'* of the lower hinge has a peculiarly-shaped eye *d⁸*, which coacts with the described projection and pintle of the hinge part *d'*. Said eye is extended in the direction of the length of the hinge-leaf to enable the eye to be passed down over the enlarged portion of the pintle *d* when such enlarged part is used, and also to enable the eye to be moved upon the pintle in a direction more or less crosswise to that in which said enlarged portion of the pintle is extended for the purpose of effecting the locking of the blind, as hereinafter described. Said eye is also substantially squared at its outer corner *d⁹*, substantially as shown, and at its other outer corner *d¹⁰* it is preferably somewhat rounded, and its face *d¹¹*, between said corners, is preferably flat, substantially as shown.

The operation of the improved construction is as follows: The blind to hang it is turned into its half-open position substantially. This position is represented in Figs. 1, 3, and 5. The eye of the upper hinge is above the pintle of that hinge, and the eye of the lower hinge is also above the pintle of the lower hinge, but relatively arranged thereto, as indicated by the broken lines *x* in Fig. 5—that is, the eye of the lower hinge is in position to be dropped over the enlargement upon the pintle, and the blind is some-

what out of plumb, and after the blind has been lowered and released it swings to cause the lateral projection d^5 upon the pintle to lap upon the eye. The blind is now lowered, 5 in which movement, owing to the described vertical extension of the pintle of the upper hinge, the eye of the upper hinge engages with its pintle before the eye of the lower hinge engages with its pintle, and by this means the 10 hanging of the blind is facilitated, as the parts of the upper hinge can be adjusted before the parts of the lower hinge need to be connected. The blind being hung, it is operated and locked in the following manner: As the blind 15 is opened from its closed position (indicated by the broken lines y in Fig. 5) and is swung, say, half-way open, as shown in full lines in Fig. 5, its eye at its corner d^{10} bears against the outer edge of the projection d^2 , as indicated in Fig. 5, and as the blind is swung 20 still farther open the face d^{11} , and ultimately the corner d^9 of the eye, rides upon said outer edge, and the parts assume the position substantially as shown in Fig. 6. As the blind 25 is thus swung from its position of Fig. 5 into its position of Fig. 6 the eye acts somewhat like a cam in connection with the projection d^2 , and the eye in consequence is forced and moved with relation to its pintle to cause the 30 outer end of the eye to be nearer the pintle than it is in the position of Fig. 5 and the blind to be shifted out of perpendicular, and in consequence to be inclined from the window-frame, as indicated by the position of the 35 blind shown in the full lines in Fig. 2. The blind is not yet fully open and it is not locked, but by continuing to turn the blind and until the corner d^9 of the eye comes within the projection d^2 the eye is brought opposite the space 40 d^3 , between the projection and hinge-leaf proper, and as soon as this occurs its tendency to assume the vertical position causes the blind to swing from its full-line position of Fig. 2 into the position indicated by the 45 broken lines in that figure and also shown in Fig. 7, and in which last-named position the corner d^9 of the eye comes squarely within

and against the side of the projection d^2 , and the blind is thereby locked, and before it can be released the blind must be, with the pin- 50 tle of the upper hinge for a bearing, swung sidewise outward from the window-frame until the parts are brought again into the position shown in Fig. 6, whereupon the blind can be swung upon its two bearings, the up- 55 per and lower pintles, and, if desired, be wholly closed. The described sidewise or releasing movement of the blind away from the window-frame is readily effected by any one from within the window by applying force 60 to the inner lower corner of the blind; but any attempt to swing the blind before its lower end has been thus moved away from the window-frame is frustrated by reason of the projection d^2 being in the way of the 65 squared corner d^9 of the eye.

So far as making the pintle of the upper hinge longer than the pintle of the lower hinge is concerned, I desire not to be restricted to any particular blind or window- 70 frame or hinge, as this feature of the improvement is adaptable to ordinary hinges and blinds and window-frames; nor do I wish to be limited to the upper hinge, as the arrangement may be reversed and the pintle 75 of the lower hinge be made the longer one. I prefer, however, the arrangement shown.

I claim—

1. The combination, in a hinge, of the hinge-eye, elongated as described and squared at 80 its outer corner, with the pintle and the projection of the complementary hinge part, substantially as described.

2. The combination, in a hinge, of the hinge-eye, elongated as described and squared at 85 one end and rounded at the other of its outer corners, with the pintle and the projection of the complementary hinge part, substantially as described.

Witness my hand this 27th day of May, 1892. 90
CYRUS E. GILLESPIE.

Witnesses:

C. D. MOODY,
A. BONVILLE.