

T. CLUCAS, Jr.

Lock-Hinges for Blinds.

No. 142,679.

Patented September 9, 1873.

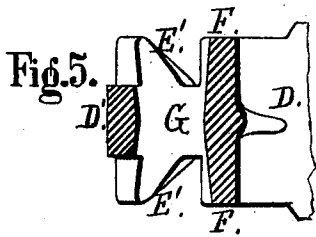


Fig. 1.

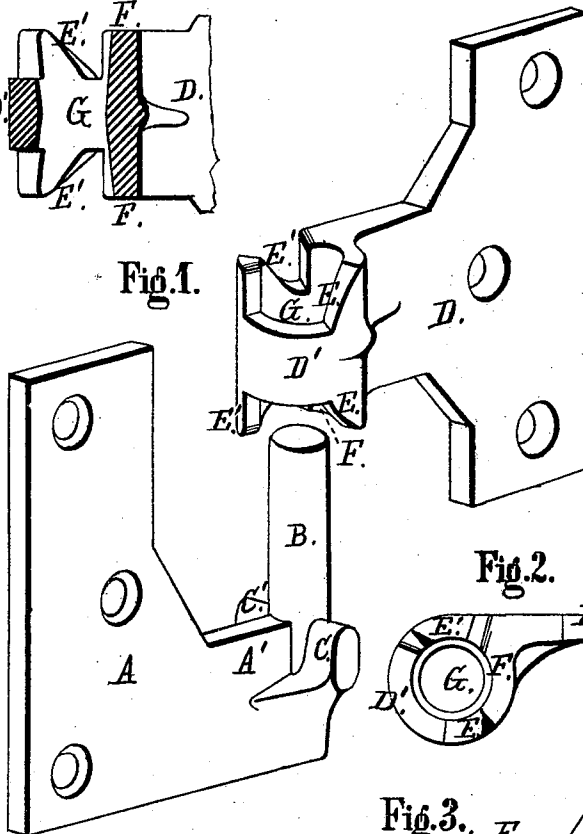


Fig. 2.

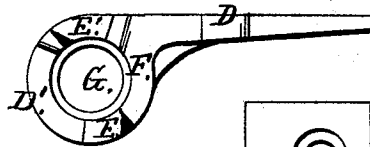


Fig. 3.

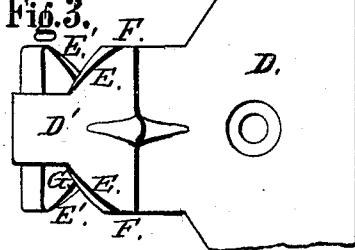


Fig. 4.

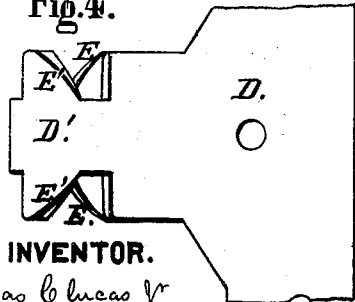
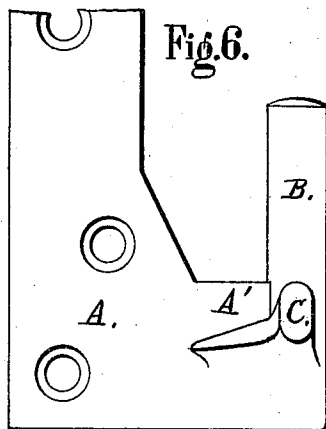


Fig. 6.



ATTEST.

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UNITED STATES PATENT OFFICE.

THOMAS CLUCAS, JR., OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN LOCK-HINGES FOR BLINDS.

Specification forming part of Letters Patent No. **142,679**, dated September 9, 1873; application filed July 3, 1873.

To all whom it may concern:

Be it known that I, THOMAS CLUCAS, JR., of the city and county of St. Louis and State of Missouri, have invented certain Improvements in Self-Locking Blind-Hinges, of which the following is a specification:

This invention consists in forming on the sides of the pintle two projecting lugs constituting the fixed members of the lock or cams. These lugs are at the sides of the pintle, transversely to the leaf of the hinge. The horizontal bearing of the hinge-socket rests, when the hinge is closed, upon a horizontal rib forming part of the leaf. The metal of the sleeve or socket of the female part has notches or recesses, so as to form two projecting locking inclines or cams, and has a segment-shaped horizontal bearing surface or plane, which, when the hinge is closed, rests on the horizontal rib of the male part, and by means of which, in combination with the top of the transverse lugs on which the said plane moves the blind can be swung out in a horizontal position until it clears the window-frame before it drops to a lock.

By this peculiar construction a single locking hinge—*i. e.*, one that only locks when the blind is open—is formed, having co-acting or balancing cams or inclines on each side of the pintle, which equalizes the force applied to close the hinge, and in a great measure prevents the leakage that is otherwise caused by the jamming of the parts. My invention also consists in forming the socket in the sleeve of the female part flaring both ways from the middle, or countersunk from both ends to the center, so as to allow the parts to act in cases where the pintle has been crooked or out of line, or when the pintle and socket are out of line, either from being improperly hung in the first place, or becoming so from exposure and use.

Figure 1 is a perspective view, showing the male and female parts detached. Figs. 2, 3, 4, and 5 are, respectively, top view, front, rear, and sectional elevations of the female part. Fig. 6 is a side elevation of the male part.

A is the male part carrying the pintle B, and having locking lugs or inclines C C' arranged on each side of the pintle B and transversely to the body or leaf A. The pintle B is connected to the body A by the web or rib

A', the top of which is horizontal. D is the female part, the sleeve D' of which has raised lugs or locking-cams E E', and a raised segmental bearing-surface, F, the bottom of which is horizontal, and in the same plane as the top of the cams E E' and rib A'.

In the drawing the parts E, E', and F are in duplicate, so as to render the hinge reversible.

The socket G of the female part is countersunk from each end toward the center, so as to allow the free operation of the hinge in cases where the pintle is cast out of line, or where the parts A or D are improperly hung, so that they are out of line.

The operation of my improved hinge is as follows: The hinge being in its closed position, the female part D rests by means of its horizontal bearing F on the web or rib A' of the male part A, and as the shutter is swung open the bearing-surface F travels around in a horizontal direction, so as to "clear" the frame over said rib A' and top of cam C until it reaches the edge of the incline E, when it drops to a lock on the co-acting cams C E and C' E'.

I do not claim, broadly, the arrangement of balancing or equalizing locking cams or inclines on opposite sides of the pintle, as I am aware that the application of this principle to double-locking hinges is old; neither do I claim, broadly, constructing the hinge so as to swing open and shut horizontally.

I claim—

1. The provision, in a self-locking hinge, of the countersunk socket G, as and for the purpose set forth.

2. The co-acting locking-cams C C' arranged on opposite sides of the pintle B transversely, and the horizontal bearing-web A' in line therewith forming a part of the leaf A, in combination with the co-acting cams E E' and horizontal bearing-surface F, of the socket-member, formed and arranged substantially as herein specified, so that the movable leaf shall swing horizontally clear of the frame and then drop to a lock on the co-acting cams, as set forth.

THOMAS CLUCAS, JR.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.