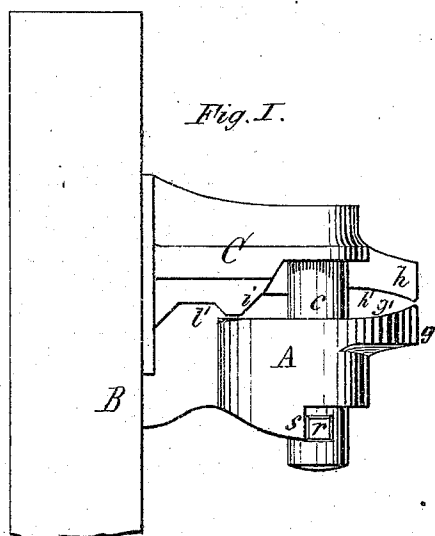
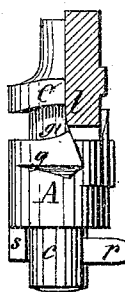
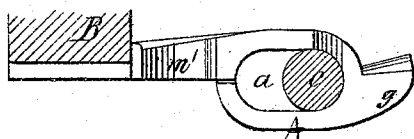
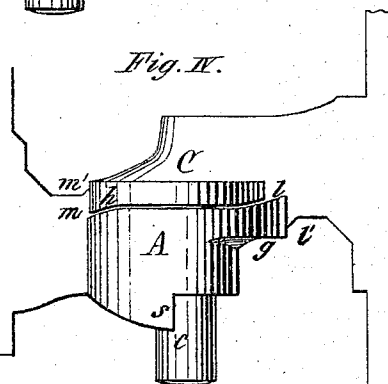
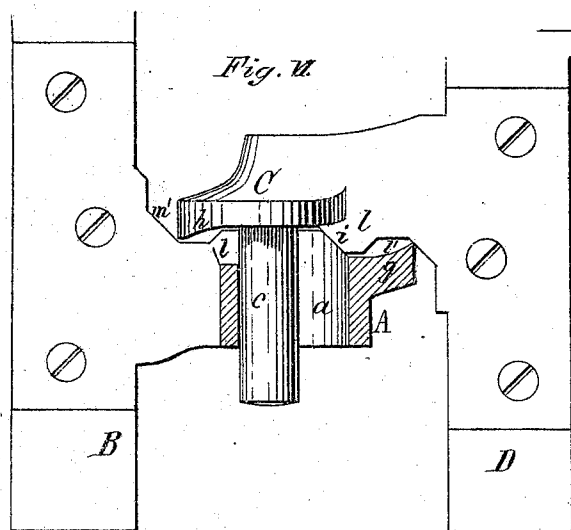
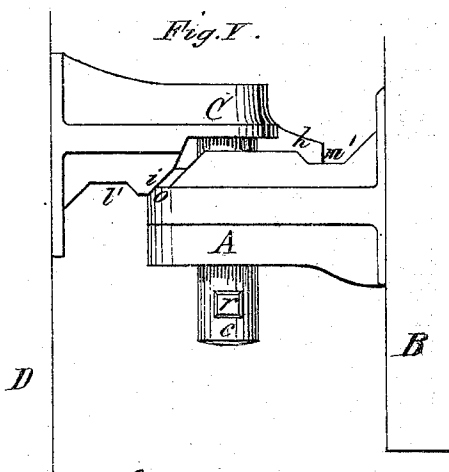


Improvement in Self-locking Blind Hinges.

No. 122,594.

Patented Jan. 9, 1872.

*Fig. II.**Fig. III.**Fig. IV.**Fig. V.*

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Att'y.

UNITED STATES PATENT OFFICE.

OLIVER S. GARRETSON, OF BUFFALO, NEW YORK.

IMPROVEMENT IN SELF-LOCKING BLIND-HINGES.

Specification forming part of Letters Patent No. 122,594, dated January 9, 1872.

SPECIFICATION.

I, OLIVER S. GARRETSON, of the city of Buffalo, in the county of Erie and State of New York, have invented certain Improvements in Self-Locking Blind-Hinges, of which the following is a specification.

Previous to my invention various kinds of hinges have been made with inclines for holding the blind open by gravity, which forms a partial stop as opposed to a positive lock. Blind-hinges have also been made with the eye piece provided with an elongated hole to receive the pintle of the other portion, in connection with an incline, and a positive or rigid lock for holding the blind open, the fastening being disengaged by raising the blind, which is accomplished by pushing or pulling it up the incline, the elongated hole permitting the requisite horizontal movement of the pintle. These prior hinges have been found objectionable. In the hinges that hold the blind open by inclines and gravity, the inclines, if made sufficiently steep to properly hold the blind, require so much force to disengage the fastening as to render this kind of hinge objectionable. The hinges which hold the blind open by a positive lock are objectionable because they are not self-adjusting, as are the kind known as the gravity hinge. Furthermore, persons unskilled in the construction of hinges, seeing no special means for holding the blind open, are liable to break the hinge in their endeavors to close the shutter.

The object of my invention is to provide an improved self-fastening hinge for window-blinds that will offer strong resistance to the closing of the blind by the wind or a pull at the outer edge of the blind, and yet will unfasten and allow the blind to close before the hinge breaks, while at the same time it is so constructed that a slight pull at the inner edge of the blind will disengage the fastening and allow the blind to be easily closed, thereby combining the advantages of both kinds of hinges above described without the defects of either. My invention consists: First, in the combination, in a blind-hinge provided with an elongated hole for the pintle, of two sets of inclines of different degrees of inclination, one set (the more abrupt) for holding the blind open, and the other set, preferably of lesser

inclination, for the purpose of facilitating the disengagement of the inclines which hold the blind open. Second, in a blind-hinge provided with an elongated hole for the pintle of a stop-arm, which projects from the pintle, in combination with a shoulder formed on the knuckle of the eye piece, with which the said arm engages, so as to force the pintle into the outer end of the elongated hole as the blind is closed. Third, in combination with the releasing inclines, of notches or recesses formed in the locking inclines, whereby the latter inclines are disengaged without requiring the blind to be raised the full height of the inclines, as is hereinafter fully shown and described.

In the accompanying drawing, Figure I represents the hinge when the blind is closed. Fig. II represents the hinge with the leaf of the pin piece broken off, the latter being raised by pulling the outer edge of the blind. Fig. III is a plan view of the eye piece of the hinge. Fig. IV represents the two portions of the hinge locked. Fig. V represents the hinge with the pin piece being raised by pulling the inner edge of the blind toward the wall. Fig. VI represents the hinge with the pin piece fully raised for closing the blind.

Like letters designate like parts in each of the figures.

A is the eye piece of the hinge, attached to the wall or casing B, and provided with an elongated hole, *a*; and C the pin piece, attached to the blind or shutter D, and provided with a cylindrical pintle, *c*. The outer side of the knuckles of the portions A C of the hinge are provided, respectively, with projections *g h*, which overlap portions *l m* of the wings of each portion A C when the blind is open, as shown in Fig. IV. The surfaces of these parts *g h l m*, which are contiguous when in the position shown in this figure, are inclined, as represented in Fig. II, and form the partial stops or fastening which serve to hold the blind open. As each set *g l* and *h m* perform the same function, only one set is absolutely required, although I prefer to use both as they render the fastening stronger and cause the parts to operate more uniformly. The lower edge of the wing back of the incline *l* is formed with a notch or recess, *v*, while the wing of the opposite portion at its upper edge is provided

with a similar notch, m' , as most clearly shown in Fig. VI. The upper side of the projection g and the under side of the projection h are also recessed, as shown at g' and h' . The lower edge of the wing of the pin portion C is formed with an incline, i , as clearly shown, which engages with the upper edge of the knuckle of the portion A where the blind is open, as shown at o , Fig. V, and slides up the same when disengaging the fastening, as will presently be explained. r is a short arm, projecting at right angles from the pintle, and s is a rabbet or shoulder in the lower edge of the knuckle of the eye piece, forming a stop with which the arm engages, as will also be presently explained.

My improved hinge being constructed as shown and above described the two parts A C are connected by turning the parts so that the arm r will be in line of the longer diameter of the hole a , in which position the pintle is readily inserted in the eye piece. When connected together this arm prevents the parts being disengaged, except when in this particular position—*i. e.*, when the blind is at right angles to the side of the building. The blind being in an open position, as shown in Figs. IV and V, the incline i , in connection with the weight of the blind, causes the pintle to assume its proper position in the outer end of the elongated hole of the eye piece, while the inclined stop projections $g h$ rest in contact with the correspondingly-inclined surfaces $l m$ of the wings of the respective portions of the hinge. These inclines can be made sufficiently abrupt to securely hold the blind open against any strain that the hinge can safely bear, and at the same time permit the blind to close when the strain exceeds that limit. To close the blind a pull on its edge directly inward toward the side of the building, which is the most natural and convenient direction, will cause the comparatively slight incline i to ride upon the knuckle and raise the blind with the exertion of but little force compared with that which is re-

quired to overcome the steeper inclines $g h$, that require the power to be exerted for the purpose in an angular direction. After the blind has been partially closed the arm r strikes the shoulder s and forces the pintle back again to its former position in the outer end of the elongated hole, in which position it is required to be to enable the blind to entirely close. By means of the notches $g' h' l' m'$ a comparatively slight elevation of the blind will be sufficient to disengage the portions $g h$, and before the blind has been raised the full height of the inclines, the disengagement being in this case effected by the lateral displacement of the parts, as most clearly shown in Fig. VI. The employment of these notches enables the incline i to be made of less length and the elongation of the hole a to be reduced, while the inclines $g h$ may be made of greater length, as the elongation of the hole is not required when the blind is released by an angular force, such as a strong wind would exert, or an unskilled person in attempting to close the blind by swinging it around as on an ordinary hinge.

What I claim is—

1. The combination, in a blind-hinge provided with an elongated eye for the pintle, of two sets of inclines, one of greater inclination for holding the blind open, and the other of lesser inclination for facilitating the disengagement of the fastening, substantially as hereinbefore set forth.

2. The combination, in a blind-hinge provided with an elongated eye for the pintle, of the pintle-arm r and stop s , substantially as set forth.

3. In a blind-hinge, the notches $g' h' l' m'$, arranged with the elongated pintle-hole and inclines $g h l m$ for facilitating a lateral displacement of the said inclines; as shown and described.

OLIVER S. GARRETSON.

Witnesses:

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JNO. J. BONNER.

(24)