(No Model.)

R. H. DORN.

BLIND HINGE.

No. 304,081. Patented Aug. 26, 1884.

Fig. 1.

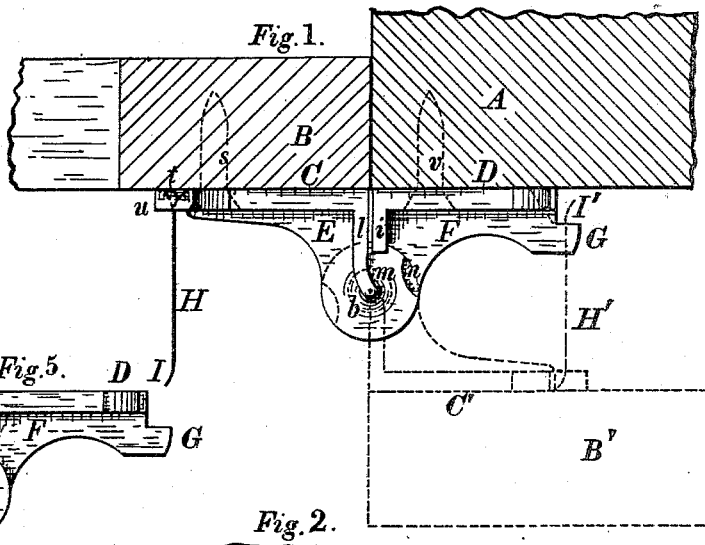


Fig. 5.

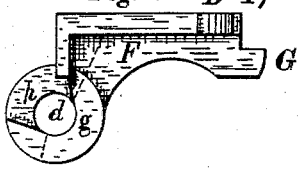


Fig. 2.

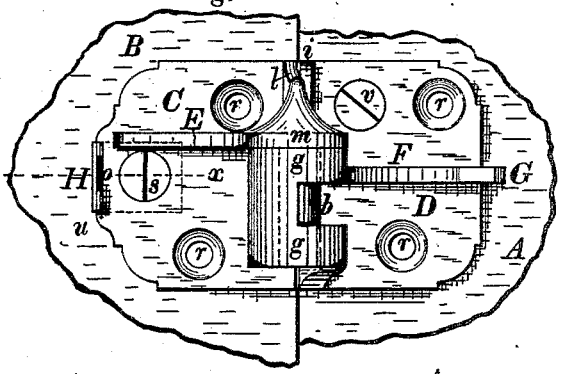


Fig. 6.

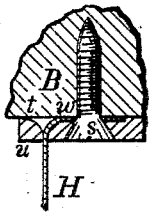


Fig. 7.

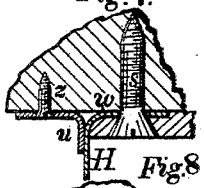


Fig. 8.

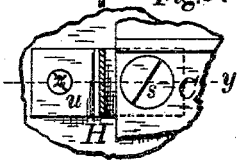


Fig. 3.

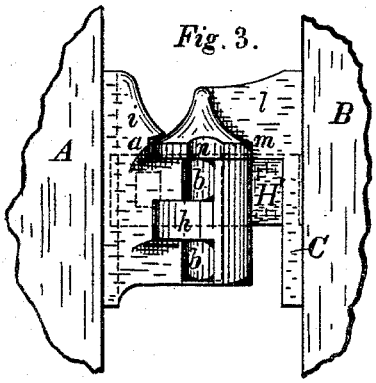
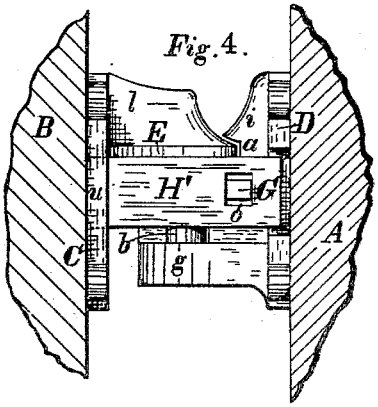


Fig. 4.



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UNITED STATES PATENT OFFICE.

RUFUS H. DORN, OF ROCHESTER, NEW YORK.

BLIND-HINGE.

SPECIFICATION forming part of Letters Patent No. 304,031, dated August 26, 1884.

Application filed October 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, RUFUS H. DORN, of Rochester, Monroe county, New York, have invented certain Improvements in Hinges, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to certain improvements in hinges, designed more particularly to be applied to outside blinds or shutters for windows, but capable of use for other purposes, and which improvements are fully described and specified in the accompanying specification and claims.

In the accompanying drawings, representing my improvements in hinges, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 represents the hinge as seen from the left hand in Fig. 1 when the blind or shutter is open. Fig. 4 represents the same as seen from the right hand in Fig. 1. Fig. 5 is a plan view of one half of the hinge detached. Fig. 6 is a section on the line *x x*, Fig. 2. Figs. 7 and 8 represent a modification, Fig. 7 being a section on the line *y y*, Fig. 8.

In the accompanying drawings, representing my invention, A is the window-casing; B, the blind or shutter. C is the hinge-leaf carrying the pintle *b*, which engages with the eye or socket *d*, Fig. 5, of the other hinge-leaf, D, and H is a spring provided with an opening, *o*, Fig. 4, which engages with the lug G on the leaf D when the blind or shutter is open, and prevents its swinging in either direction. The pintle and eye are offset a short distance, as represented in Fig. 1, being connected to the leaves or body of the hinge by the strengthening-ribs E and F. The hinges are provided with the countersunk openings *r r*, which receive the screws *s v*, by which the hinges are attached to the casing at the side of the window or door and to the blind or shutter. One of the strenghtening-ribs may project a short distance beyond the body of the hinge and terminate in the lug G, having parallel sides, and which enters the openings *o*, Fig. 4, in the spring H when the blind is opened, as indicated by the dotted lines in Fig. 1, so as to secure the blind in that position. The lug G may, however, be formed on the hinge-body independently of the strengthening-rib. At the inner edge of the pintle-leaf a rib, *l*, projects outward from the hinge-body and serves to strengthen the connection of the pintle *b* therewith. The pintle is provided at its upper end with a circular flange, *m*, which may be a continuation of the rib E, and which rests on the curved wall *g* of the eye *d*, and carries the weight of the blind. The flange *m* turns in a notch, *a*, in the flange *i* on the socket-leaf, being itself provided with a notch, *n*, which permits the engagement or disengagement of the two leaves when turned around relatively to each other, so that the point of the flange *i* can pass through the notch *n*, in which position the pintle *b* may be inserted into or withdrawn from the socket *d*. In order to facilitate the casting and to avoid the use of cores in the molding of the socket-leaf, the socket *d* is formed of three semicircular walls, one of which is shown at *h*, intermediate between the other two, (represented at *g g*.)

The spring H consists of a flat piece of spring-metal, provided with the opening *o* at its free end of a size adapted to fit over and engage with the lug G. The inner end of the spring H may be attached directly to one of the leaves by a rivet or screw; but I prefer to bend it under the hinge-body, as represented at *w*, Figs. 6 and 7, and to secure it in place by one of the screws *s*, by which the hinge is held in place, the inner surface of the hinge being preferably provided with a recess to receive the end of the spring. In this construction, in order to sustain the outside or back of the spring, I provide a support, *u*, against which the spring bears a short distance outside the bend in it, and by which its durability is materially increased. I form this support by making a slot in the hinge-body, through which the spring passes, as represented in Figs. 1 and 6, or by securing to the blind just outside the hinge the supporting-piece *u*, Figs. 7 and 8, by means of the screw *z*.

I am aware that locking-springs have previously been applied to hinges—as shown, for instance, in the patent of Drott, No. 25,728, October 11, 1859—in which a spring provided with a projection is made to engage with a projection on the opposite hinge when the blinds are open, and such devices I hereby disclaim; but I am not aware that a pin and eye hinge offset from their respective plates or flanges, one of which is provided with a projecting lug at the edge away from the joint

adapted to enter a perforation in a flat spring attached to the other hinge, as herein shown and described, have been heretofore combined. The placing of the spring and lug at the edges of the hinge-body away from the joint affords greater resistance to any force applied to swing the blind, and also facilitates the unlocking of the hinge by providing room for the insertion of the thumb or fingers in detaching the spring from the lug. I also disclaim anything shown or described in Patents Nos. 99,844, February 15, 1870, and 208,152, September 17, 1878.

I claim—

1. In a lock-hinge, the combination, with the socket-leaf D, of the pintle-leaf C, one of which is provided with the projecting lug G and the other with the spring H, having opening *o*, the said spring being attached to the rear end of the leaf by means of a screw, *s*, all arranged to operate substantially as and for the purposes described.

2. In a lock-hinge, the combination, with the socket-leaf D, of the pintle-leaf C, one of which is provided with the projecting lug G and the other with the spring H, having the opening *o* therein, the said spring being attached to the rear edge of the leaf of the hinge by means of a screw, *s*, and having the support *u*, all substantially as and for the purposes described.

RUFUS H. DORN.

Witnesses:
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H. G. PHILLIPS.