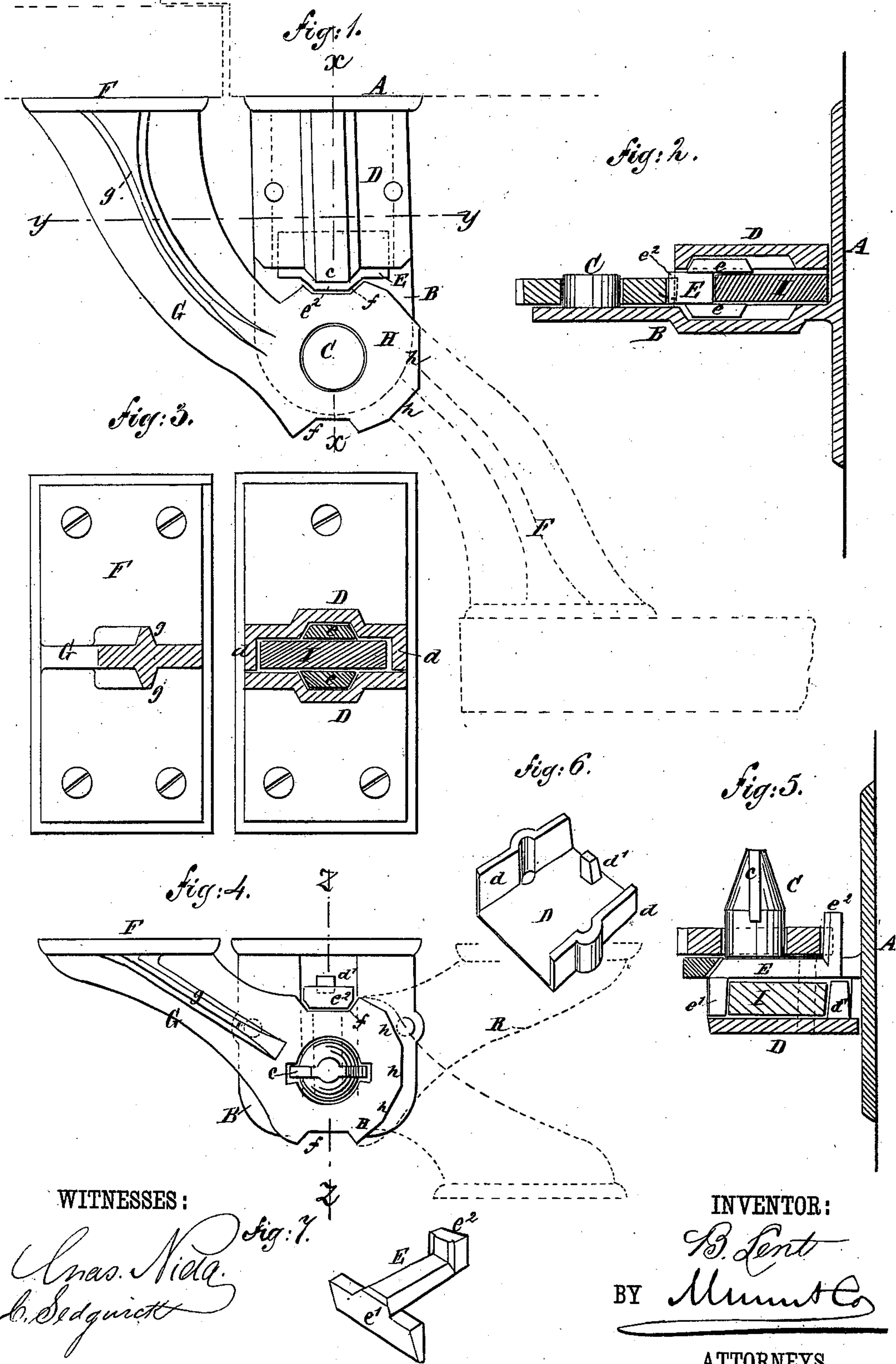


B. LENT.
Lock-Hinge.

No. 204,984.

Patented June 18, 1878.



WITNESSES:

Chas. Nida.
C. Sedgwick

Fig. 7.

INVENTOR:

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UNITED STATES PATENT OFFICE.

BENSON LENT, OF PEEKSKILL, NEW YORK.

IMPROVEMENT IN LOCK-HINGES.

Specification forming part of Letters Patent No. **204,984**, dated June 18, 1878; application filed May 24, 1878.

To all whom it may concern:

Be it known that I, BENSON LENT, of Peekskill, in the county of Westchester and State of New York, have invented a new and Improved Blind-Hinge, of which the following is a specification:

Figure 1 represents a top view of my improved blind-hinge as adapted for use in a brick house, and in the position it has when the blind is closed. Fig. 2 is a vertical section of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a vertical section of the same, taken on the line *y y* of Fig. 1. Fig. 4 is a top view of a modification of the same adapted for use on a frame house. Fig. 5 is a vertical section of the same, taken on the line *z z* of Fig. 4. Fig. 6 is a detail perspective view of the spring-case. Fig. 7 is a detail perspective view of the spring-slide.

Similar letters of reference indicate corresponding parts.

The object of my invention is to furnish a cheap and strong reversible blind-hinge, which will be locked automatically when the blind is closed or fully open, and will retain the blind, also, in other positions, and which will prevent the removal of the blind from its hinge-pin, except when the blind is in the above-named position of fully closed or fully open.

The hinge is formed of two brackets, of which one is secured to the wall and the other to the blind-sash, the latter bracket having an angular head, by which it is fitted to swing horizontally upon a vertical pin formed on the former.

The stationary bracket has a box or case inclosing a spring, which latter acts upon a slide having a stop thus pressed against the angular circumference of the pivoted head of the swinging bracket, said stop entering a corresponding notch in the said circumference to lock or retain the swinging bracket and blind in position when fully opened or closed. When in these positions the swinging bracket may be lifted off the pivot. In all other positions it is prevented from being lifted off by a projection on the spring-case or on the pivot, which laps, respectively, the outer or the inner circumference of the head of the swinging bracket, as will be hereinafter described.

The stationary bracket consists of the vertical plate A attached to the wall and the horizontal plate B cast in one piece with A, and having cast upon its outer end the vertical pin or pivot C.

The swinging bracket consists of the vertical plate F, attachable to the blind-sash, the curved horizontal arm G (with strengthening feathers or ribs *g*) projecting from the plate F, and the head H on the end of the arm G, all cast together in one piece.

The head H is flat and has a hole through its center, adapting it to be pivoted upon the pin C, and its circumference is angular, being composed of cords *h* drawn in the periphery of a circle, having for its center the center of the pivot-hole.

In each of the opposite ends of the diameter, which, extended, would form right angles with the extended plane of the plate F, the circumference of the head H is cut away to form a notch or recess, *f*, with flat bottom, and whose two sides form obtuse angles with the bottom.

D is a plate with vertical flanges *d*, which plate, when attached with the flanges against the plate B, and with one of its open ends against the plate A, forms a case or box for inclosing a rubber or other spring, I. The open end of the case D, opposite to the pin C, is closed by the sliding block E, which is held firmly pressed against the edge of the head H by the expansion of the spring I.

The block E (in a blind-hinge for a brick house, as in Figs. 1, 2, and 3) is provided with an upper and a lower guide-cleat, *e*, by which it slides in grooves in the plates D and B, said cleats at the same time serving as stops against the front ends of the grooves to retain the slide E in the case D. The end of the block E in contact with the head H has a stop, *e*², formed upon it.

In a blind-hinge for a frame house, as in Figs. 4, 5, 6, and 7, where the pin C is too near the plate A to allow of proper room for the spring I between them, the case D is placed below the plate B, and the block E is sliding in a slot in the plate B beneath the pin C, and has a downwardly-projecting flange, *e*¹, in front, acted on by the spring I and the stop *e*² projecting upward at the rear end of the spring

The block E in this case is supported underneath by a stud, d' , cast on the inside of the plate D.

The stop e^2 of the spring-slide E is of suitable shape to fit and fill the notches f , and is pressed by the spring I against the circumference of the head H with force enough to retain the blind by friction, under ordinary circumstances, in any position in which the flat surface of the stop e^2 rests against one or the other of the cords h ; and when lodged in one of the notches f the stop e^2 will lock the blind in position—that is to say, retain it with increased friction, requiring an extra exertion to overcome. When in this position the blind or the pivoted bracket may be lifted off the pin C. In all other positions the projection e , (formed on the forward end of the case D in a blind-hinge for a brick house,) which is not projecting as far as the depth of the notch f , will lap or overreach the edge of the head H, thus preventing the removal of the blind from the pin C.

In a blind-hinge for a frame house, as in Figs. 4 and 5, the projection e is formed on the pin C above the head H, and the latter

provided with notches coinciding with the projections on the pin C when the hinge is in position of closed or fully open.

As the swinging bracket is exactly alike on its upper and lower sides, it may be reversed and placed on the pin C in the dotted position marked R in Fig. 4, when it is desired to change the hinge from the left to the right side of the window.

The cords h and intermediate angles on the circumference of the head H between the notches f may be omitted as not essential, and the circular curve maintained.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the spring I and the follower or stop-block E, arranged upon the plate B of the stationary bracket, with the swinging bracket provided with notches f in the circumference of the head H, substantially as and for the purpose set forth.

BENSON LENT.

Witnesses:

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ALEX. F. ROBERTS.