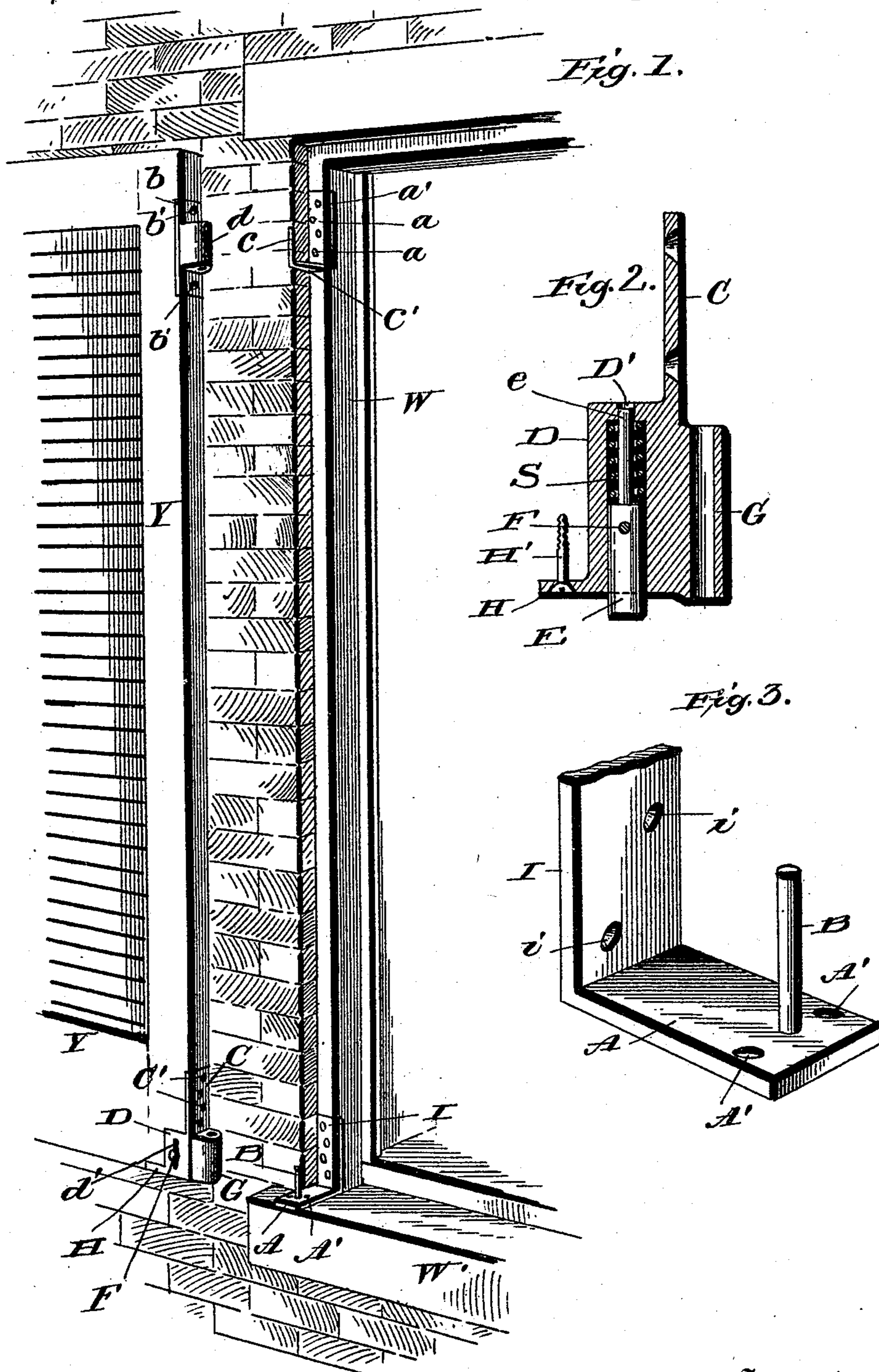


(No Model.)

Z. B. CHASE.
LOCK HINGE.

No. 518,021.

Patented Apr. 10, 1894.



Witnesses :

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UNITED STATES PATENT OFFICE.

ZENAS B. CHASE, OF BANGOR, MAINE.

LOCK-HINGE.

SPECIFICATION forming part of Letters Patent No. 518,021, dated April 10, 1894.

Application filed December 27, 1892. Serial No. 456,512. (No model.)

To all whom it may concern:

Be it known that I, ZENAS B. CHASE, a citizen of the United States, and a resident of Bangor, Penobscot county, State of Maine, have invented certain new and useful Improvements in Lock-Hinges; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to hinges, and more especially to that class thereof employing a lock; and the object of the same is to effect certain improvements in devices of this character.

To this end the invention consists in the specific construction hereinafter described and claimed, and as illustrated in the drawings, wherein—

Figure 1 is a perspective view of one side of a window frame and the inner edge of one blind, showing such frame and blind as carrying the two parts of upper and lower hinges constructed in accordance with my invention.

Fig. 2 is an enlarged longitudinal section through the lower hinge member which is connected with the blind. Fig. 3 is a perspective detail of the angle plate or casting which is attached to the window frame.

Referring to the said drawings, the letter W designates the window frame having a sill W'. Secured to the outer face of this frame is an angle plate whose upright member I has a number of holes *i* through which pass screws into the frame, and whose lower horizontal member A rests upon the sill W'. Rising centrally from this lower member is a pin B forming the pintle of the lower hinge, and at either side of said pin is a hole or cavity A' for a purpose to be described below.

The letter *a* designates a plate forming part of the upper hinge and having a number of holes *a'* through which are passed screws into the frame W. *c* is an upright pin standing in front of the face of this plate and having a shoulder *c'* at its lower end which is connected with the plate as shown.

The letter Y designates the swinging blind which may be constructed of a suitable frame-work with slats, or may be solid as preferred.

C is a plate countersunk into the inner edge of the blind and secured by screws C'; and

at the lower end of this plate is a horizontal extension or lip H countersunk into the lower edge of the blind and secured by screws H'. At the angle formed by these two plates is a box D preferably integral with the plates and so arranged with reference to the width of the plates that it shall be countersunk into that face of the blind which is innermost when the blind is closed—the exposed face of this box having an upright slot *d'*. The interior of the box as illustrated in Fig. 2 is cylindrical from its lower end to its upper end which latter is reduced as at D', and within this box moves a bolt E whose body fits therein and whose upper end is reduced as at *e* so as to pass loosely through the reduced upper end D' of the cavity. An expansive spring S surrounds the reduced shank of the bolt and presses the latter normally downward, and a handle or a thumb-piece F projects from the body of the bolt outward through the slot *d'* in the box. The lower end of the bolt is thus normally borne below the plate H, and it is so located as to be in position to engage one of the holes or cavities A'. Preferably cast integral with the plate C is a collar G of a shape and size to fit over the pin B, and this collar preferably stands opposite the transverse center of the inner edge of the blind instead of at one corner thereof as blind hinges are now commonly constructed.

b is a plate countersunk into the inner edge of the blind near its upper end and held in place by screws *b'*, and *d* is a collar carried by this plate directly above and in line with the collar G and adapted to surround the pin *c* so as to form the upper hinge.

All parts of this device are of the desired sizes and materials, and some change may be made in the exact details of construction without departing from the spirit of my invention.

In use, the parts are attached in position as shown, and the blind is hung by dropping the collars *d* and G respectively over the pins *c* and B. To open the blind, the knob or handle F is raised which raises bolt E out of the innermost cavity A' against the force of spring S, after which the blind is swung around until it reaches its outermost position, when the knob is released and the lower end of the bolt drops into the opposite cavity A'. To close

the blind the operation is reversed. It will thus be seen that by my hinge the blind is detachably connected with the frame, is hung at its transverse center instead of at its corner as now common, and is automatically locked in either open or closed position by the bolt engaging one of the apertures. The whole is inexpensive of manufacture, easy of application, and simple in its construction.

10 What is claimed as new is—

1. In a hinge, the combination with an angle plate whose upright member is secured to the outer face of the window frame and whose lower horizontal member rests upon the window sill, has a central upright pin, and is provided with apertures in its upper face at opposite sides of the pin; of an angle-casting let into the lower corner of the blind, a collar at the transverse center of said casting adapted to loosely surround said pin, a box integral with and at the angle of the casting countersunk into the blind and having an upright cavity and an upright slot opening through the normally inner face of the blind, a bolt mounted in said cavity and having a handle projecting through its slot, the lower end of the bolt being adapted to engage either of said apertures, and an upper hinge, substantially as described.

2. In a hinge, the combination with an angle plate whose upright member is secured to the outer face of the window frame and whose lower horizontal member rests upon the window sill, has a central upright pin, and is provided with apertures in its upper face at opposite sides of the pin; of an angle-casting let into the lower corner of the blind, a collar at the transverse center of said casting adapted to loosely surround said pin, a box at the angle of the casting countersunk into the blind and having an upright cavity with a reduced upper end and an upright slot opening from the cavity through the normally inner face of the blind, a bolt mounted loosely in said cavity and having a reduced upper end passing through the reduced upper end of the cavity, an expansive spring coiled around the reduced upper end of the bolt between the shoulder thereon and the upper end of the cavity, a handle on the bolt projecting through said slot, the lower end of the bolt being adapted to engage either cavity, and an upper hinge, substantially as described.

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Witnesses:

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