(No Model.)

G. B. COWLES.

LOCK.

No. 324,818. Patented Aug. 25, 1885.

Fig. 1.

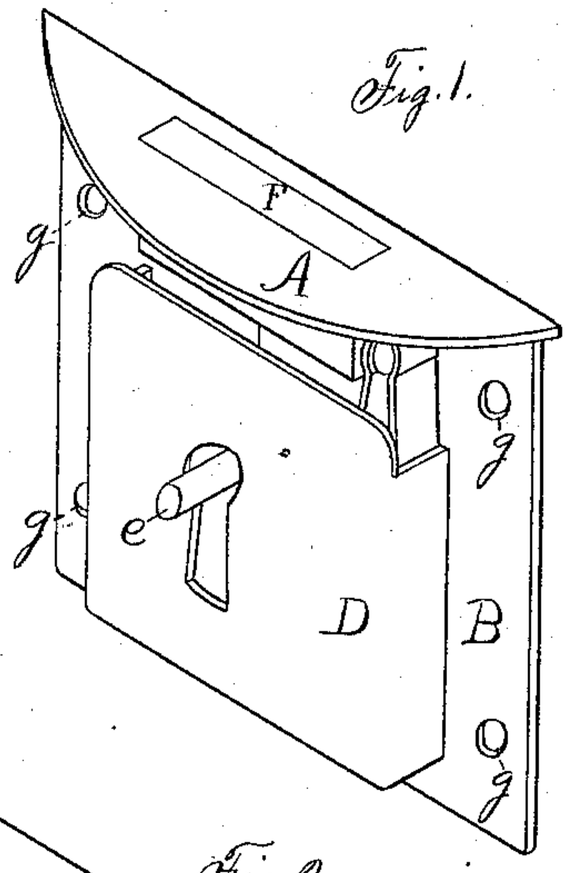
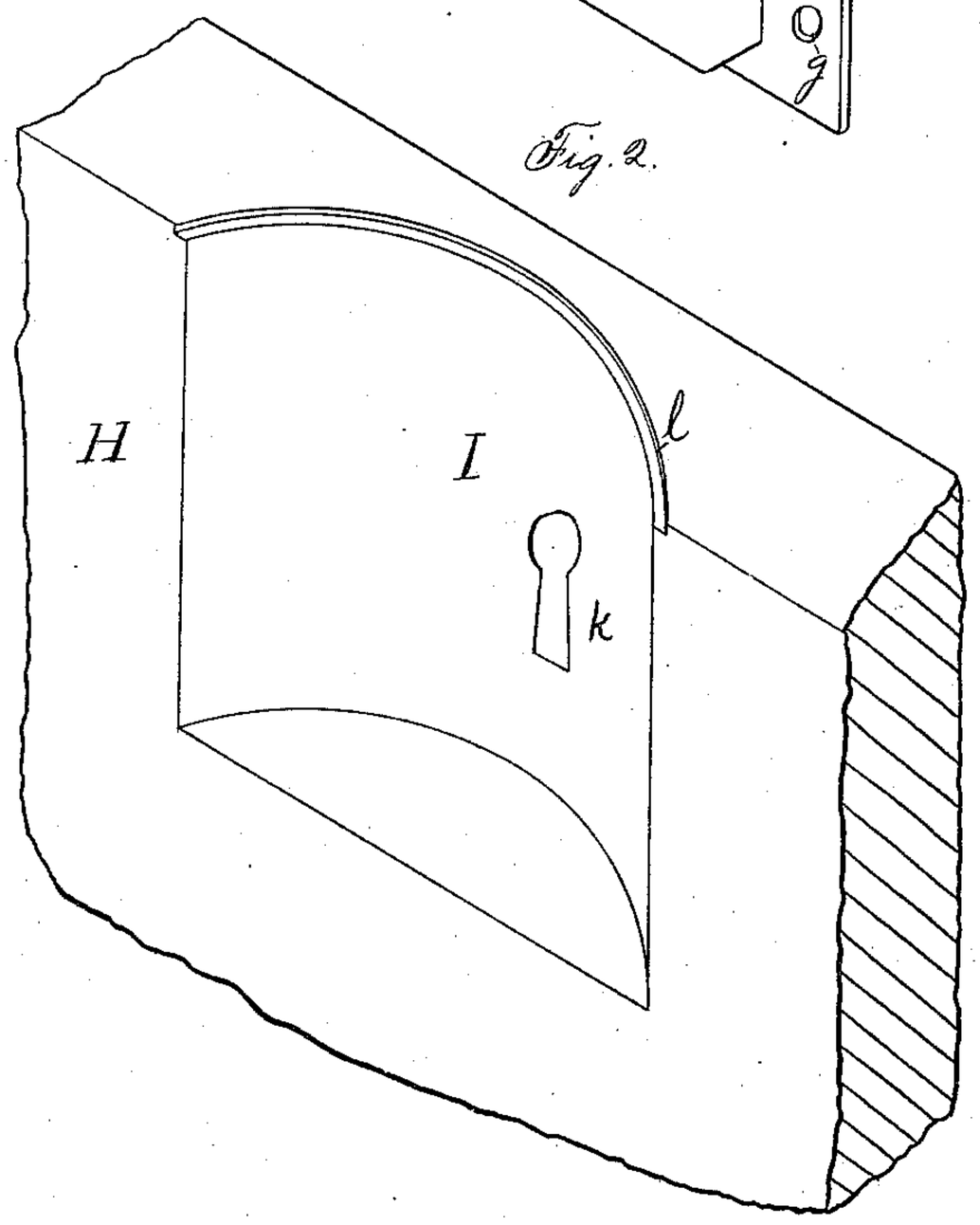


Fig. 2.



Witnesses.
John Edwards Jr.
Geo. E. Dunham

Inventor.
George B. Cowles.
By James Shepard
Atty.

UNITED STATES PATENT OFFICE.

GEORGE B. COWLES, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE CORBIN CABINET LOCK COMPANY, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 324,818, dated August 25, 1885.

Application filed March 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. COWLES, of New Britain, county of Hartford, and State of Connecticut, have invented a certain new and useful Improvement in Locks, of which the following is a description.

My said invention relates especially to such locks as are used upon drawers in bureaus, desks, and other articles of furniture; and it has for its object the production of a lock of such shape as to adapt it to insertion in a mortise which has been cut by a machine-cutter whose axis of rotation is parallel with the inner surface of the drawer-front. In this mortise the lock is intended to be fastened by screws or other well-known means.

My improvement is illustrated by the accompanying drawings, in which Figure 1 represents a lock embodying my invention, and Fig. 2 shows a mortise, such as is adapted to receive the lock and permit it to be secured upon the inner face of the drawer-front.

A represents the top plate or selvage. The front edge of this top plate is made in the arc of a circle, as shown, in order that it may exactly fit the inner wall of the mortise.

B is the front plate, which is in the usual shape, including the straight lower edge.

D is the cap-plate, and *e* the key-post projecting through the key-hole therein.

F is the bolt extending through the top plate, and *g g* represent holes for the insertion of fastening screws or nails, formed in the front plate, B.

H is the inner face of the front of the drawer, showing the mortise I, having a flat bottom and a cylindrically-shaped side wall, such as may be produced in the manner hereinafter stated. The key-hole is seen at *k*, extending from the mortise through to the front of the drawer.

The mortise adapted for the insertion of the lock may be made by the use of a common cutter in a molding-machine, mounted upon a horizontal axis instead of upon a vertical axis, in the way commonly employed in cutting special mortises for the insertion of correspondingly-constructed locks. This cutter enters the wood upon its edge when the latter is pressed against it; and it will be readily understood that by means of a supplemental cutter or cutting edge, which is brought into use just before the full depth of the mortise has been cut, the seat *l* for the under side of the top plate can be made, if desired. Such a seat should be made when the top plate overlaps the edges of the plate below it, as shown in Fig. 1; but I also contemplate the use of my invention in locks whose top plates do not overlap, in which case there will be no seat *l*.

The advantages of my improvement over other locks adapted to insertion in machine-cut mortises are at once apparent; but some of them may be enumerated. In the first place, the downward extension in rounded form, which is necessary in locks for mortises cut by bits having vertical axes, is dispensed with, thereby effecting a considerable saving in stock.

Another advantage is that key-posts may be used, if desired, long enough to extend forward to the outer surface of the drawer, my lock differing in this respect from locks inserted in dovetailed excavations. This advantage is especially great in that class of locks in which a bushing or tube fastened to the cap surrounds the key-post, which is expressly intended to extend through to the front face of the drawer. It will also be noted that, by reason of the peculiar shape of the mortise which may be used in consequence of the arc-shaped edge of the lock, the screws inserted through the holes near the edge of the front plate will enter the wood almost immediately, owing to the shallowness of the corresponding portions of the mortise, thus obtaining a firm hold in the wood and fastening the lock very securely in place. It will also be noted that the front plate will enter the wood so as to be flush with its surface without any special excavation for that purpose. This effect is due to the peculiar shape necessarily produced by a cutter moving on a horizontal axis and producing a mortise whose greatest depth is considerably less than the radius of a circle corresponding to the sweep of the cut.

I am aware that it is not broadly new to

make locks adapted to insertion in mortises, and such I do not claim; but,

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

1. The lock herein described, having a top plate or selvage whose front edge is in the arc of a circle while the rear edge is straight, said selvage projecting from the top edge of the front plate, B, substantially as described, and for the purpose specified.

2. The combination, with a support having a routed cavity formed therein, the rear wall of the cavity being of concave form, in combination with a lock provided with a projecting key-post, and a top plate or selvage having its front or projecting edge made in the arc of a circle, projecting over and beyond the cap-plate, and adapted to cover and conceal the upper end of the routed cavity, and provided with a flat front or lock plate that covers and conceals the open side of the cavity, substantially as set forth.

GEORGE B. COWLES.

Witnesses:
CHARLES PECK,
JOHN P. BARTLETT.