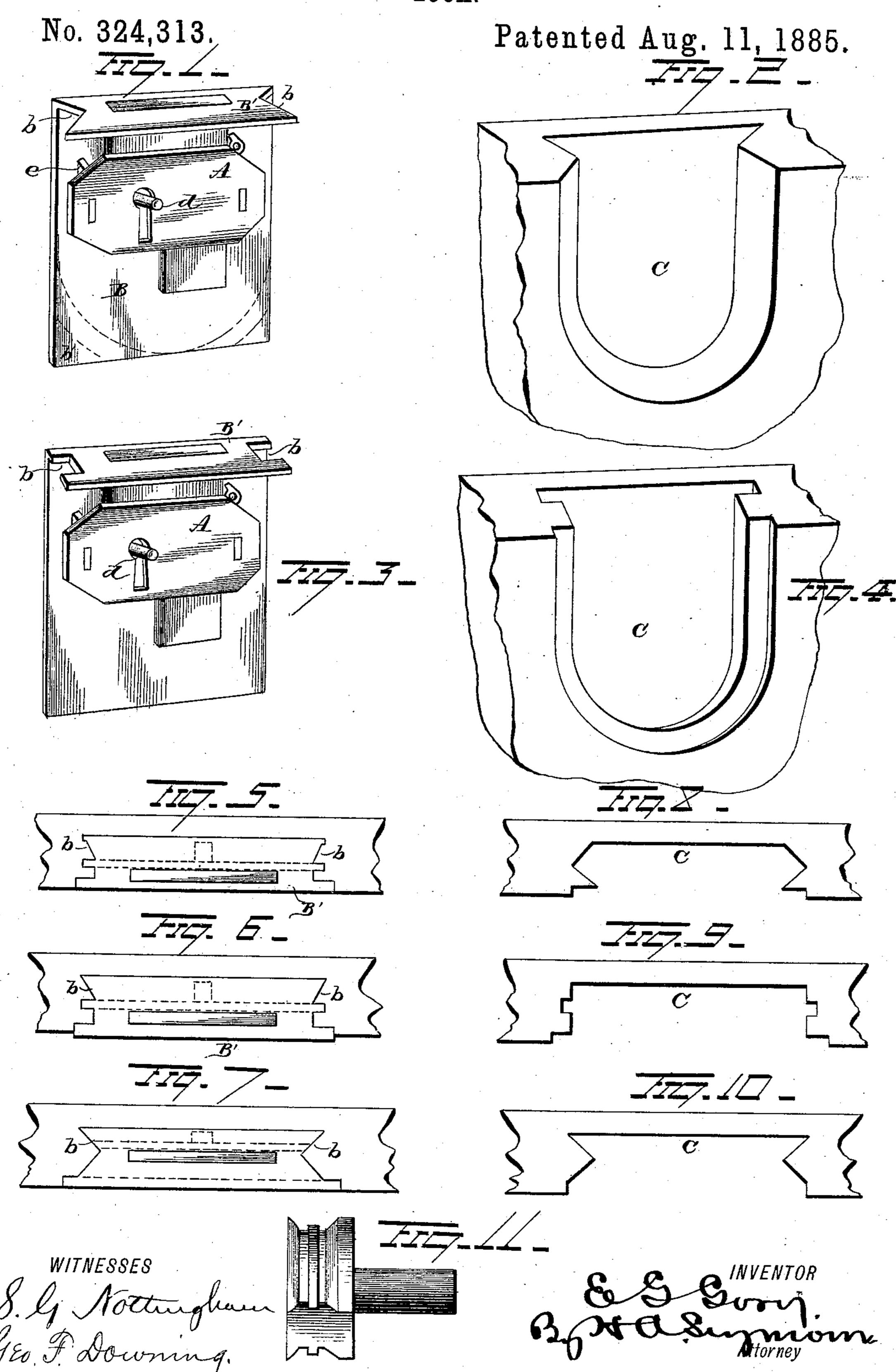
## E. G. GORY.

LOCK.



## United States Patent Office.

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## LOCK.

SPECIFICATION forming part of Letters Patent No. 324,313, dated August 11, 1885.

Application filed July 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, EMANUEL G. GORY, a citizen of the United States, residing at Cincinnati, county of Hamilton, State of Ohio, 5 have invented certain new and useful Improvements in Locks, of which the following is a specification.

The object of my invention is to provide a lock-case of such construction that an ordiic nary form of lock with a projecting key-post may be readily inserted and secured within a routed cavity, and thereby insure all of the advantages that are incident to the special form of lock disclosed in Letters Patent No. 15 138,148, granted to me April 22, 1873.

With this end in view my invention consists in certain features of form and construction and combinations of parts, as will be hereinafter described, and pointed out in the 20 claims.

In the accompanying drawings, Figure 1 is a view in perspective of one form or construction of lock embodying my invention. Fig. 2 is a similar view of a portion of a drawer-25 front provided with a routed cavity for the reception of the lock illustrated in Fig. 1. Figs. 3 and 4 are views in perspective of another form of lock and routed cavity. Figs. 5, 6, and 7 are plan views of modifications, 30 showing portions of drawer-fronts provided with routed cavities of different forms in transverse section, with locks having top plates corresponding in form to the side walls of the routed cavities shown and fitted within such 35 cavities. Figs. 8, 9, and 10 illustrate crosssections of other forms of routed cavities for the reception of locks constructed in accordance with my invention. Fig. 11 is a view in side elevation of a cutter or routing tool for 40 making one form of routed cavity.

A represents the cap-plate, through which projects the key-post of the lock mechanism, which latter may be of any desired construction. B is the lock or front plate, and B' the 45 top plate, which parts are preferably made in a single piece, the top plate, B', being bent at a right angle to the front plate. The top plate, B', is punched out or formed at its opposite ends,  $\tilde{b}$ , to conform in shape and size to the plate, B, rectangular in shape, to overlap and

sides of the routed cavity C, so that when the 50 lock is inserted in the routed cavity the top plate will enter therein and be flush with or be situated a little below the surface of the upper edge of the drawer-front.

The cap-plate A is constructed so as to ex- 55 tend laterally and impinge against the side

walls of the routed cavity.

In Figs. 5 and 6 I have represented the side walls of the routed cavity C recessed to receive the ends of the cap-plate A, which fit snugly 60 into said recesses.

In Figs. 4, 7, 8, and 10 the lock is firmly held by the adjacent faces or ends of the top plate, B', and cap-plate A, impinging upon inwardly-projecting portions of the cavity- 65 walls which lie between them. The top plate, B', projects inwardly beyond the capplate A and key-post d, so that when the lock is inserted in place the edge of the top plate comes against the bottom of the cavity, leav- 70 ing considerable space between cap-plate A and the bottom of the cavity C. By this construction I avoid the necessity for cutting a rabbet or recess for the reception of the top plate flush with or below the upper edge of 75 the drawer-front, and also of cutting a groove for the reception of the projecting key-post.

The cases of locks of the class to which this improvement is specially adapted are rarely of uniform size in cross-section, the interior of 80 the locks is rarely finished, and the riveted projecting ends of the stay-braces e are not dressed down flush with the face of cap-plate A. It is therefore evident that a routed cavity having the same shape as a cross-section 85 of the lock-case taken horizontally through cap-plate A would not fit all locks of the same number. This difficulty is entirely avoided by my invention, and even if the cap-plates A are not all of an exact size, or an exact dis- 90 tance from the top plate, B', the mortise may be made a trifle smaller between the side walls, against which the ends of the cap-plate A bear, so that the lock will require to be forced into the cavity, and in so doing the edge of the 95 plate will press into the wood.

In Fig. 1 I have shown the lock or front

conceal the cavity. In this form of case the plate B may be fastened at its lower corners by screws, while no fastenings are required at the top, as it is retained in place by the ends of the top plate interlocking with the side walls of the routed cavity.

In the event that it is desired to countersink the front plate, B, into the drawer-front, the bottom edge of the plate is rounded, as shown 10 in dotted lines, Fig. 1, and the lock-case thus constructed will be wholly retained by the sides of the lock-case and the ends of the top plate interlocking with the side walls of the routed cavity. If the routed cavity is to be 15 made by a bit the radial section of which is equal to a cross-section of the cavity, the lower edge of front plate, B, should be semicircular in form; but if the routed cavity is to be made by a smaller bit—say, a little greater in di-20 ameter than one-half the width of the rout the lower corners of the front plate, B, would be rounded to quarter-circles, as shown by dotted lines b', Fig. 1. This form has its advantages, because the front plate, B, to cover 25 and conceal the cavity, need not be made so deep or long, and in such case the cutter could be made to revolve right and left, so as to cut with the grain of the wood and thus make a smoother mortise. In Fig. 11 I have shown 30 such a cutter turned up from a block of steel. The periphery is turned to the form of the ends of the top plate. Of course the configuration of the cutter must correspond to that of the ends of the top plate, and hence differ-35 ent cutters are used for different-shaped top plates. A part of the periphery is cut away

In my improved lock the side walls or edges 40 of the lock-case and the ends of the top plate

to form cutting-edges, as molding cutter-heads

interlock with the side walls of the routed cavity, while the front plate covers and conceals the cavity, and the top plate projects over and beyond the cap-plate and covers and conceals the recess or space of the cavity that 45 is formed for the reception of the projecting key-post.

I make no specific claim to a front plate provided with a rounded bottom and projecting edges adapted to fit within a countersunk 50

recess around a routed cavity.

What I claim as new, and desire to secure by

Letters Patent, is—

1. A lock-case having its top plate constructed to project over and beyond the cap- 55 plate, and the ends of the top plate and sides of the lock-case constructed and adapted to interlock with the side walls of a routed cavity, substantially as set forth.

2. A lock-case having its cap-plate extend- 60 ed laterally beyond the sides of the lock-case, and adapted to interlock with the side walls of a routed cavity, and provided with a top plate constructed to project over and beyond the cap-plate, and its ends formed to fit within 65 and interlock with the side walls of said routed

cavity, substantially as set forth.

3. A lock-case having its front plate, capplate, and top plate constructed to interlock with the side walls of a routed cavity, and 70 thereby be prevented from either forward or backward displacement, the top plate being formed to project over and beyond the capplate and cover and conceal that portion of the routed cavity formed for the reception of a 75 projecting key-post, substantially as set forth.

EMANUEL G. GORY.

Witnesses:

G. WEIR, GEO. J. MURRAY.