(No Model.) 2 Sheets—Sheet 1.

E. PARKER.

LOCK.

No. 300,393. Patented June 17, 1884.

Fig. 1

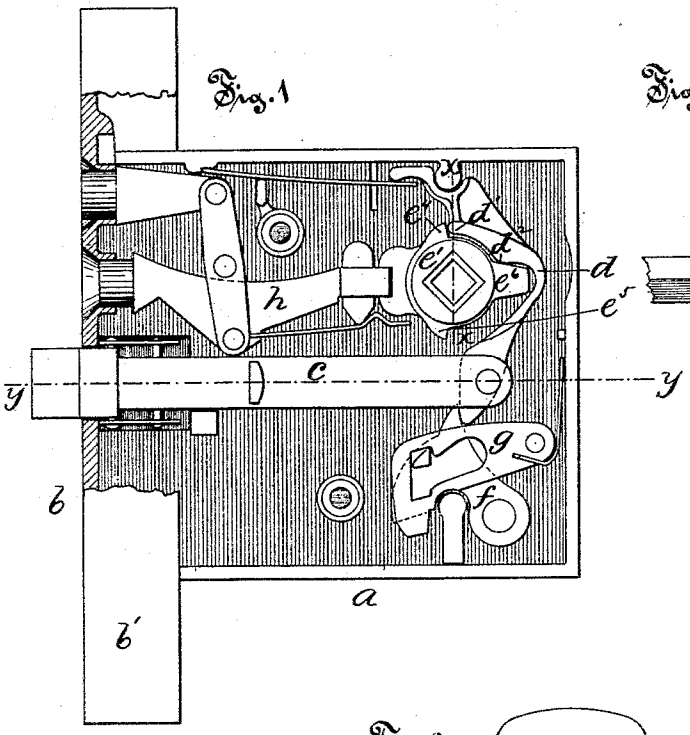


Fig. 2

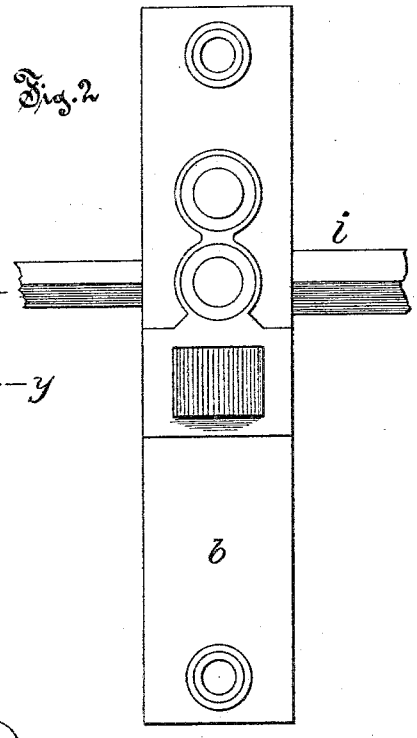


Fig. 3

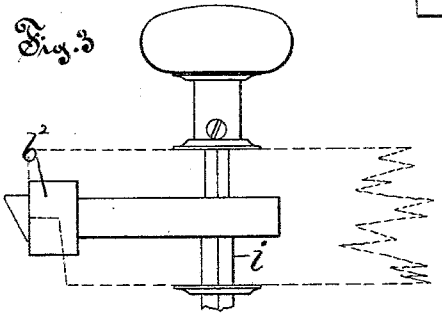
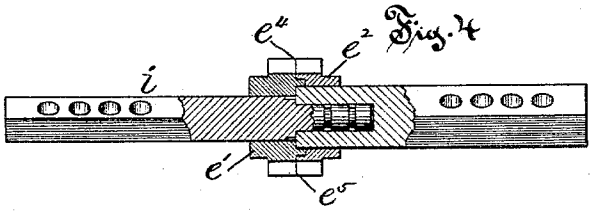


Fig. 4



Witnesses
W. M. Sperkman.
E. F. Dimock.

Inventor
Emery Parker,
By Simonds & Burdett,
Attys.

N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

E. PARKER.

LOCK.

No. 300,393. Patented June 17, 1884.

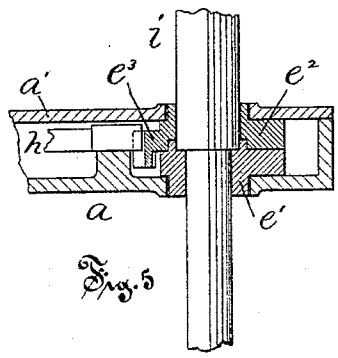


Fig. 5

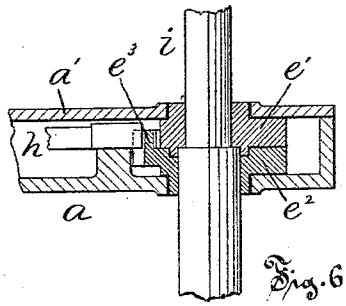
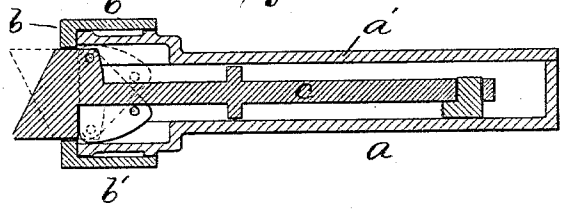


Fig. 6

Fig. 7



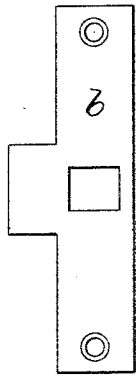


Fig. 8

Witnesses
W. M. Bjorkman,
E. F. Dimock.

Inventor
Emmy Parker,
By Simonds & Burdett,
Attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

EMERY PARKER, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE NASHUA LOCK COMPANY, OF NASHUA, NEW HAMPSHIRE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 300,393, dated June 17, 1884.

Application filed January 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, EMERY PARKER, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

Figure 1 is a plan view of the interior of my improved lock, part of the face-plate being cut away to show construction. Fig. 2 is a face view of the lock, showing part of the spindle. Fig. 3 is a top view of the lock in place in a door, showing one knob secured to the spindle. This view is on reduced scale. Fig. 4 is a side view of the swivel-spindle with part broken away near the center, and a view in section of the hub on plane denoted by line x x of Fig. 1. Fig. 5 is a view in central section of the hub with parts in place for use on a right-hand door. Fig. 6 is a sectional view of the same parts with spindle and hub reversed for use on a left-hand door. Fig. 7 is a view in section through the latch on line y y of Fig. 1. Fig. 8 is a front view of a striking-plate on reduced scale.

My invention relates more particularly to the class of mortise-locks adapted for use on the main doors of buildings; but certain features are equally applicable to other classes of locks.

My invention consists, mainly, in certain details of construction of the face that render the lock reversible—that is, adapted for use on right or left hand doors and on different depths of rabbet—in improvements in the swivel-spindle and hub that add to the security of the lock and to its convenience in use, and also in certain other details, as hereinafter more fully described.

In the accompanying drawings, the letter a denotes the cast-metal case of a mortise-lock, secured in the ordinary manner to the ornamented face-plate b. This plate is, more properly speaking, an oblong box open on the rear, as it has sides b' and ends b^2 that extend backward over the lock-case and present unbroken surfaces that can be readily polished to any desired degree, as by means of a buffing-wheel. This peculiar construction of the face adapts the lock for use on a door with either a right or left hand rabbet, or (between certain limits) with rabbets of different depths, a part of the face projecting, as seen in Fig. 3, but presenting only a finished surface to view.

Along the side of the case a and on the cover-plate a' are cast supporting-ribs a^2, in such position that when the parts are in place, as seen in the sectional view in Fig. 7, these ribs are in contact with the sides b' of the face-plate b. Within the lock-case the sliding latch-bolt c is pivoted to the lower end of the swinging tumbler d, that is operated by the lugs on the spindle-hub e.

The pawl f and tumbler g, operated by the key, are of ordinary construction, as is the bolt h and its connected levers and springs, by means of which the lock is converted from a latch operated from either side to a lock operated from the inside only by use of the knob and spindle. The latch-bolt is so made as to be readily reversed in its socket, as illustrated in the sectional view in Fig. 7. The spindle-hub e fits and turns in bearings in the case and the cover-plate a', and is made in two parts, e' e^2, adapted to turn each on the other. The hub is reversible end for end in its bearings, and the part e', always placed on the side next the inside of the door, has an angular central opening, into which the swivel-spindle i is fitted. The part e^2 has as a new feature the lug e^3, with an arm extending along the part e' past the plane of junction of the hub parts, and this lug e^3 has on its face a groove in the line of the axis of the hub, into which the end of the bolt h will take in both positions of the part e^2. By this construction the spindle and hub can be arranged so that the lock can be used for either right or left hand doors, and the spindle part and knob on the outside of the door can be locked while the inner knob is free to turn to open the door. The hub part e^2 has a larger central opening than the other part, so that a shoulder is formed between the two parts, and the swivel-spindle

is made of two pieces of different size in section, each fitting, however, in the respective parts of the hub, as seen in the sectional view of the spindle in Fig. 4. This shoulder between the parts aids the workman in correctly fitting the spindle in the hub, as it is merely necessary to insert the spindle and bring the shoulders to a bearing and then fasten on the knobs. It also prevents any attempt to enter without a key, as may be done with the old form by taking off the outside knob and pushing the spindle inward and completely out of the hub, which is then left exposed to be operated upon by any convenient means for turning the inner half of the hub, and so opening the door. My improvement effectually prevents this. The latch-lever *d* is fulcrumed at its upper end on a projection on the inner face of the latch-case, and pivoted at its lower end to the latch-bolt *c*. Between these points it bends outward around the hub, and has the bearing-faces *d' d''* on the side next to the hub and above the plane of the spindle. The hub *e* bears the lugs e^4 and e^5 upon the upper and lower sides, and also the arm e^6, that projects laterally on the side opposite the bolt *h* and into the re-entrant side of the lever-latch. These lugs e^4 and e^5 and the arm e^6 engage the faces *d'* and d^2 on the lever-latch when the hub is turned, and serve to throw back the latch-bolt. This peculiar arrangement of the lugs on the hub is new, and is a feature that aids the reversibility of the hub.

I claim as my invention—

1. In combination, the lock-case *a*, with flanged face *b*, the reversible latch-bolt *c*, the swivel-spindle with shoulder or stop, the reversible hub *e*, with parts fitting the respective swivel-sections, and the latch mechanism, all substantially as described.

2. In combination, in a latch, a swivel-spindle having a shoulder and a partible hub also having a shoulder, which, by contact with that on the spindle, keeps the parts from moving toward or upon each other when they are in position in the latch-case, all substantially as described, and for the purpose set forth.

3. In combination, in a lock, the swivel-spindle composed of parts of different cross-section and the hub formed in parts, one of which bears the grooved lug adapted to be engaged by the bolt in either position of the hub, all substantially as described.

4. In a reversible lock, the spindle-hub *e*, composed of parts *e'* and e^2, the part e^2 having the lug e^3, with the groove that is engaged by the bolt *h* in either of the described positions of the hub, all substantially as described.

5. In a latch, the combination of the case *a*, the lever *d*, with the bearing-faces *d' d²*, and the reversible hub *e*, with lugs e^4 e^5 and the arm e^6, all substantially as described.

EMERY PARKER.

Witnesses:

CHAS. L. BURDETT,

ED. F. DIMOCK.