F. L. KLEYENSTEUBER.

DOOR-BOLTS.

No. 180,353. Patented July 25, 1876.

Fig. 2.

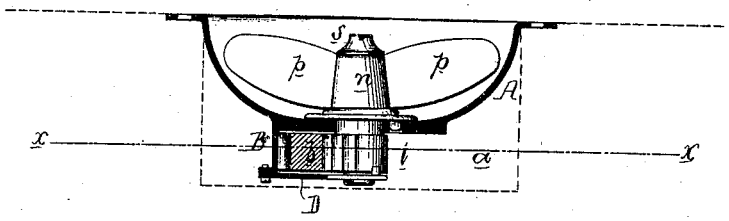


Fig. 1.

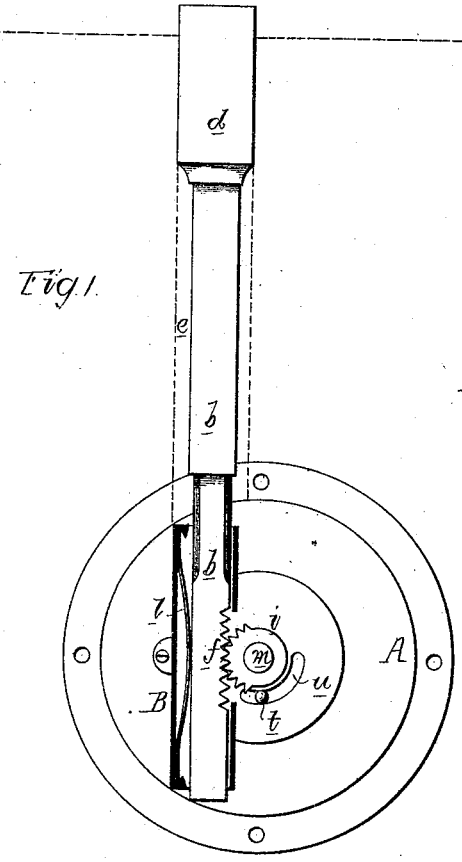
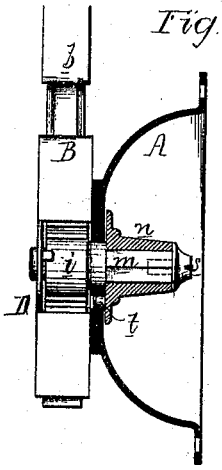


Fig. 3.



Witnesses
Harry Houson Jr
Harry Smith

Ferdinand L. Kleyensteuber
by his Attorneys
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UNITED STATES PATENT OFFICE.

FERDINAND L. KLEYENSTEUBER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DOOR-BOLTS.

Specification forming part of Letters Patent No. **180,353**, dated July 25, 1876; application filed June 22, 1876.

To all whom it may concern:

Be it known that I, FERDINAND L. KLEYENSTEUBER, of Philadelphia, Pennsylvania, have invented an Improved Door-Bolt and Casing, of which the following is a specification:

My invention relates to certain improvements in that class of door-bolts which are applied to the upper and lower edges of the door, and work in recesses in the jamb or sill; and the object of my invention is to so construct a bolt of this class that it can be more easily applied to the door and more readily operated than ordinary bolts. This object I attain by combining a cup-shaped plate with a casing, operating-wings, and bolt, and by combining a pin on the hub of the spindle with a slot in the plate, as more fully described hereafter and definitely claimed.

In the accompanying drawing, Figure 1 is a rear view, partly in section, of my improved door-bolt and casing; Fig. 2, a sectional plan on the line 1 2, and Fig. 3 a transverse vertical section.

A is a cup-shaped plate, adapted to a recess, *a*, formed in the face of the door at a short distance from the upper or lower edge of the same. This plate carries at the rear a casing, B, to which is adapted the inner end of the stem *b* of the bolt *d*, the latter extending to the edge of the door, and being contained within a vertical opening, *e*, formed in the latter. On the stem *b* are formed teeth *f*, which gear into teeth on a hub, *i*, partly toothed and partly plain, as shown in Fig. 1, this hub being carried by the operating-spindle *m*, which projects outward through the plate A, and has its bearing in the latter and in a plate, D, which covers the rear of the casing B. A spring, *l*, Fig. 1, serves to keep the teeth *f* of the stem *b* constantly in gear with the teeth of the hub *i* when the latter is in the position shown. The projecting portion of the spindle *m* is made square or angular, and to this portion is adapted a hub, *n*, having wings *p*, and secured in position on the spindle by a set-screw, *s*. The hub *n* is provided with a pin, *t*, adapted to a segmental slot, *u*, in the plate A, the purpose of which is to prevent the hub *i* from being turned to such an extent that its teeth will be turned away from the teeth *f* on the stem of the bolt. By loosening the set-screw, *s*, however, the hub *n* may be moved outward until its pin *t* is clear of the slot, and the hub *i* may then be turned until its teeth are out of gear with the teeth *f*, when the bolt may be withdrawn and reintroduced at pleasure.

The above-described device is simple in construction, and can be readily applied to a door by first forming the recess *a* for the reception of the plate A and casing B, and then forming the vertical opening *e*, which extends from the said recess *a* to the edge of the door. The bolt can also be much more readily operated by means of the devices described than by the usual knob connected directly to a sliding bolt.

If desired, a flat plate may be substituted for the cup-shaped plate A, the casing B, however, being so arranged that the center of the recess in which the stem of the bolt slides shall be on the center line *x* of the door, as shown in Fig. 2.

I claim as my invention—

1. The combination of the cup-shaped plate A and its casing B with the bolt *d* and the operating-spindle *m*, with its hub *n* and wings *p*, as set forth.

2. The combination of the plate A and its segmental slot *u* with the spindle *m*, hub *n*, set-screw *s*, and pin *t*, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FERDINAND L. KLEYENSTEUBER.

Witnesses:

HARRY HOWSON, Jr.,
HARRY SMITH.