F. L. KLEYENSTEUBER.

DOOR-BOLTS.

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

Fig 2.

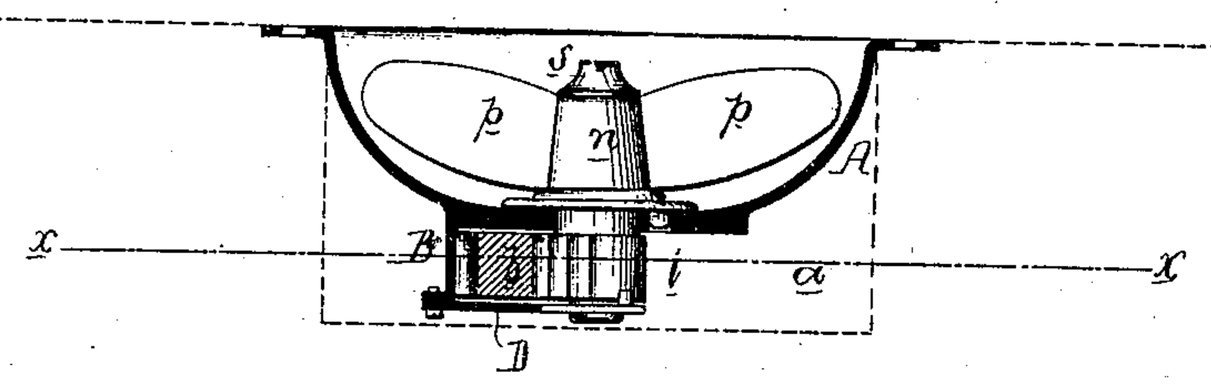


Fig 1.

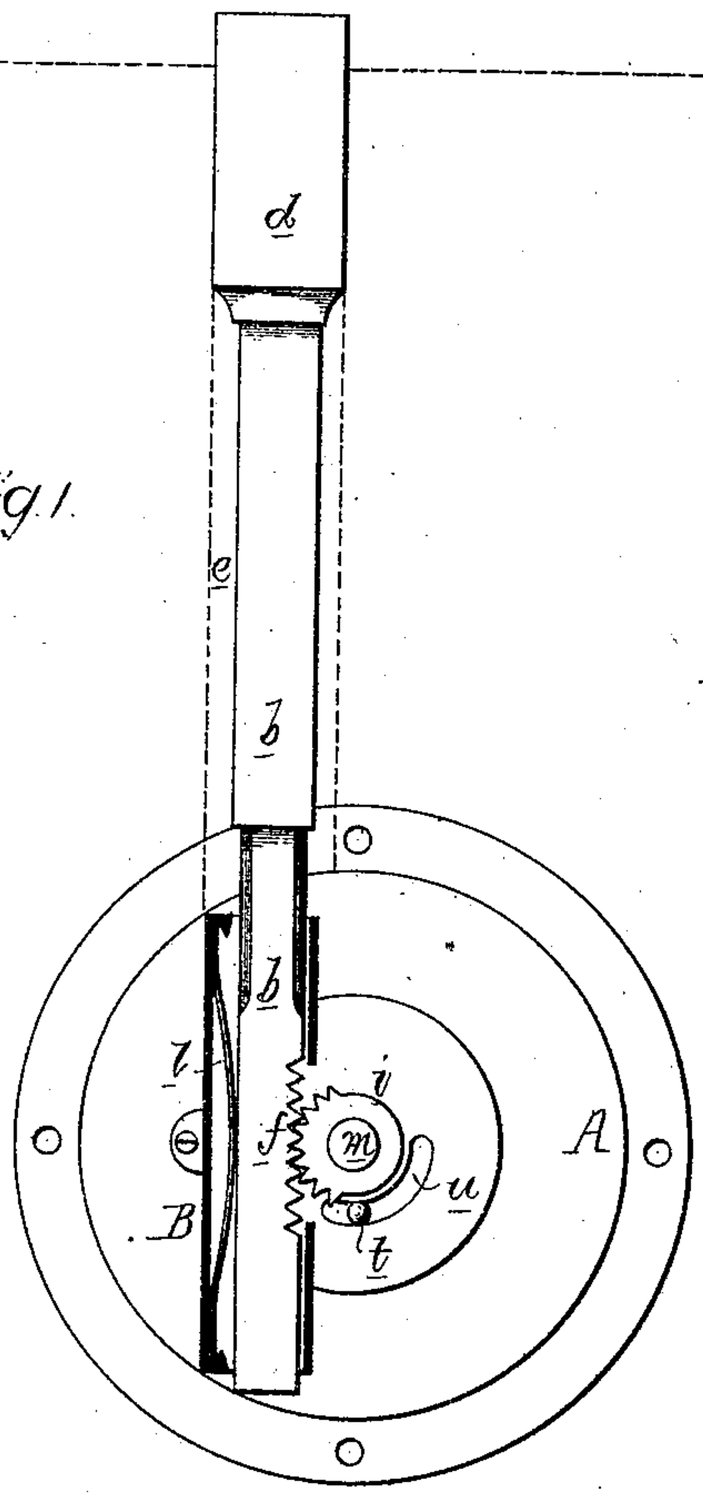
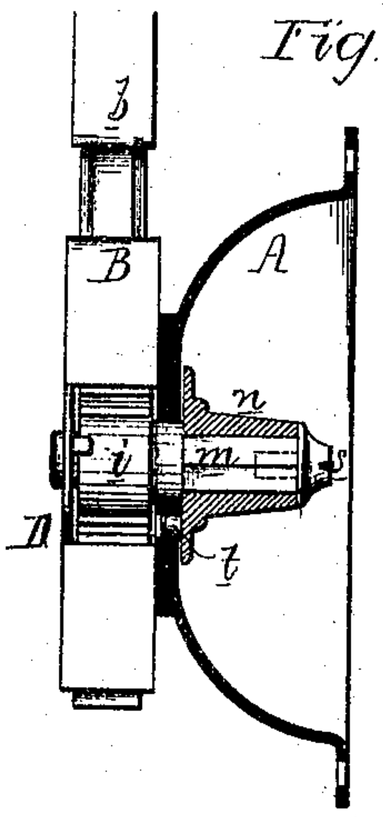


Fig 3.



Witnesses
Harry Howson Jr
Harry Smith

Ferdinand L. Kleyensteuber
by his Attorneys
Howson and Son

UNITED STATES PATENT OFFICE.

FERDINAND L. KLEYENSTEUBER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DOOR-BOLTS.

Specifi ation 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.