O. KUBLANCK.

DEVICE FOR LOCKING THE DOORS OF EMERGENCY EXITS.

APPLICATION FILED JAN. 30, 1911.

990,750. Patented Apr. 25, 1911.

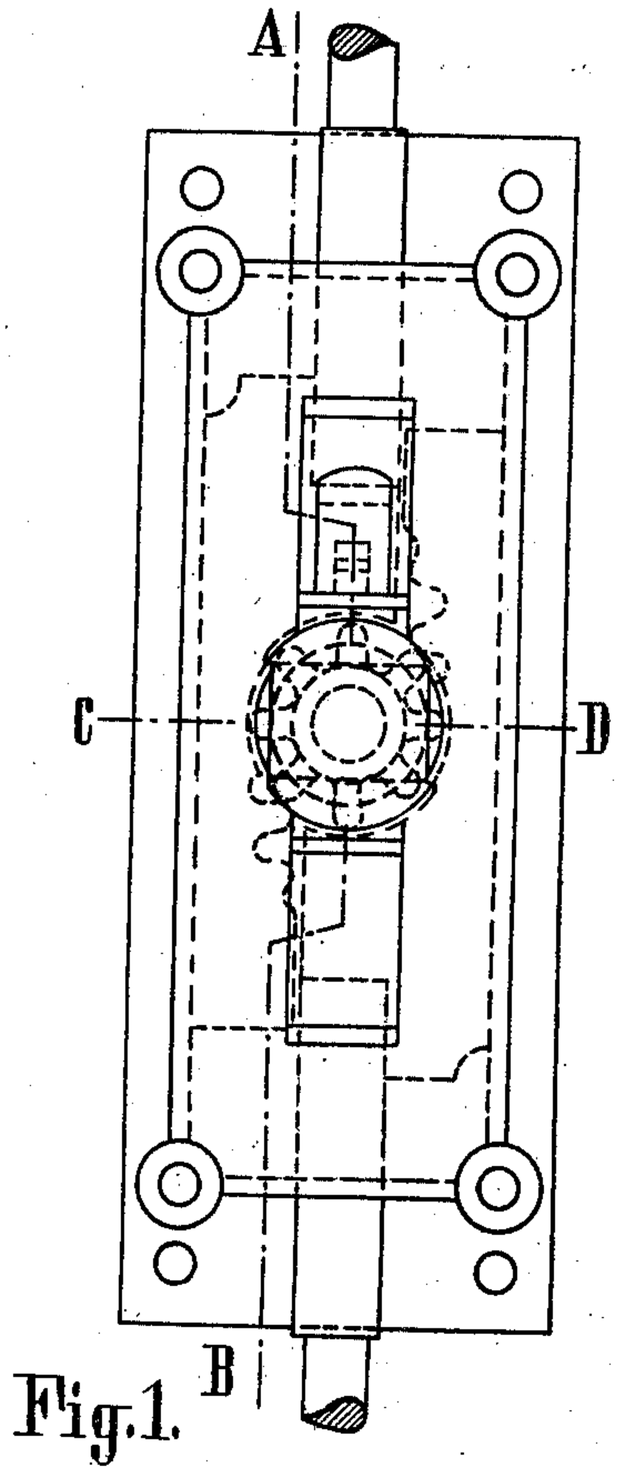

Fig. 1.

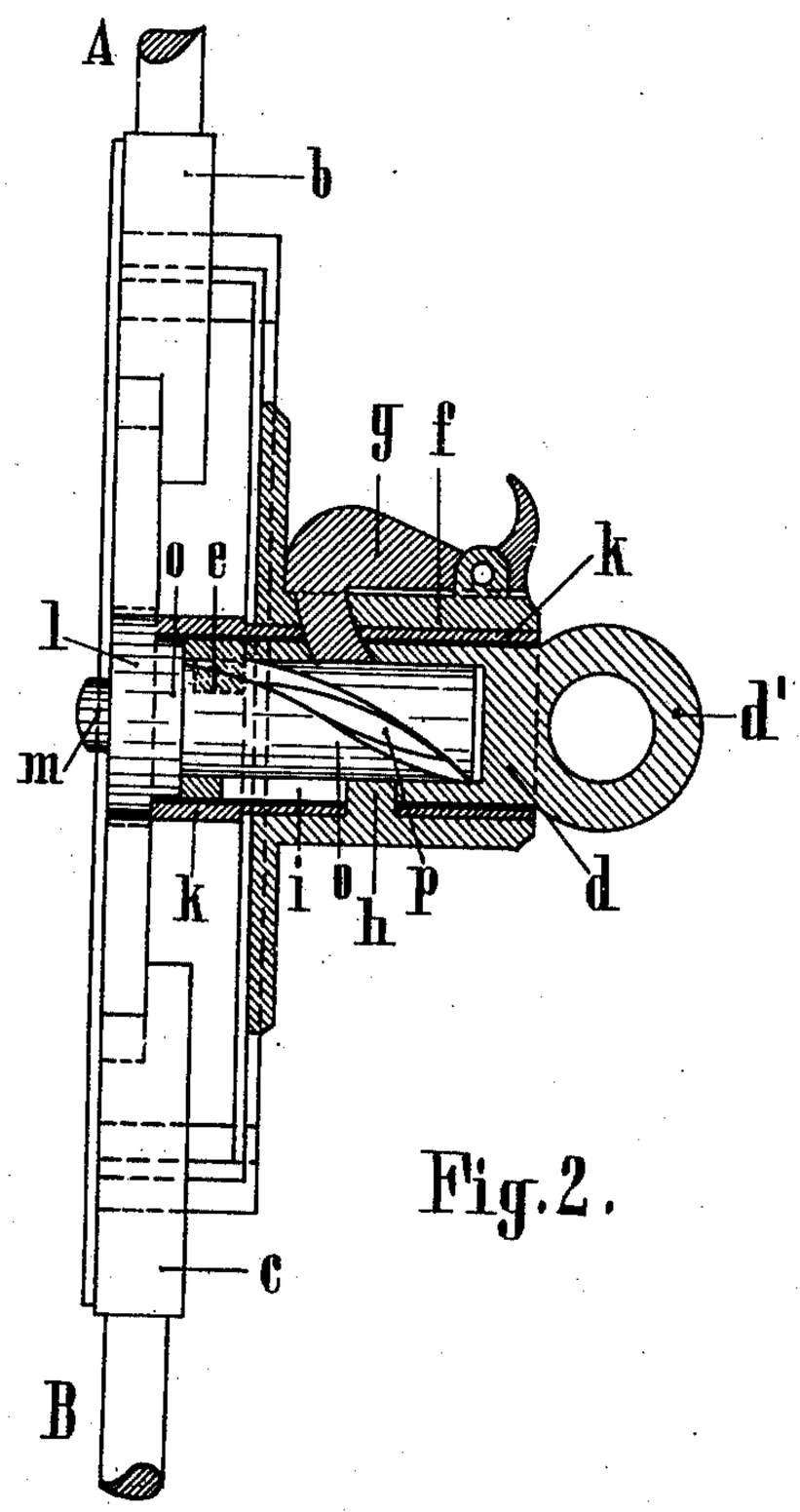

Fig. 2.

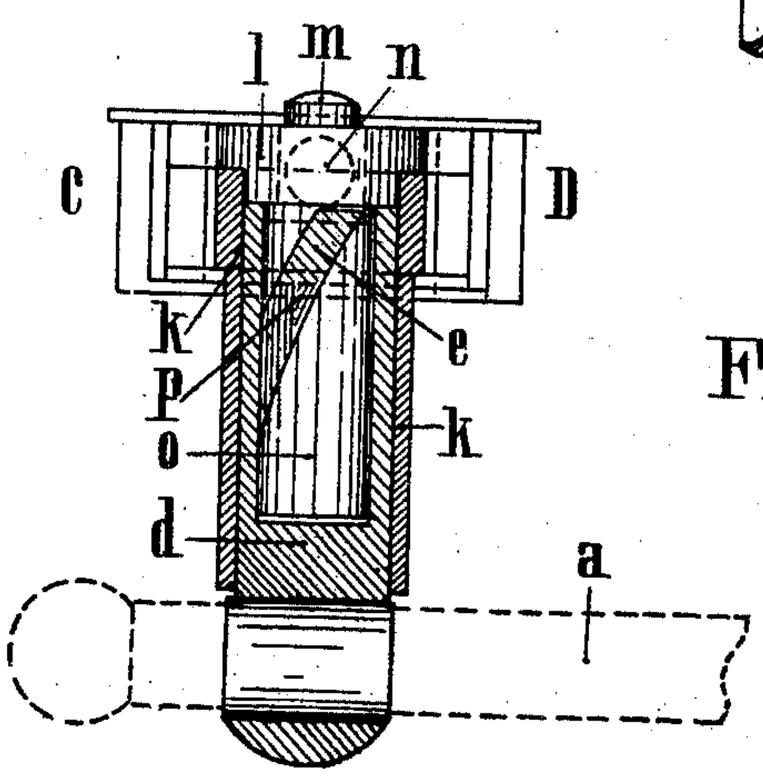

Fig. 3.

Witnesses:

Inventor:
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UNITED STATES PATENT OFFICE.

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DEVICE FOR LOCKING THE DOORS OF EMERGENCY-EXITS.

990,750. Specification of Letters Patent. **Patented Apr. 25, 1911.**

Application filed January 30, 1911. Serial No. 605,579.

To all whom it may concern:

Be it known that I, OTTO KUBLANCK, a subject of the German Emperor, and residing at Wittenberge, near Potsdam, Germany, have invented certain new and useful Improvements in Devices for Locking the Doors of Emergency-Exits, of which the following is a specification.

My invention relates to emergency exits having doors locked by means of so-called bascule bolts which can be withdrawn from their staples, boxes or the like by pressure on a rod.

A primary object of my invention is to provide improved means for turning the pinion comprised in such door-fasteners.

According to my invention I connect with the rod or cross-bar, which is pressed, a socket provided with an internal detent which enters into the helical groove cut in a pin connected with the bascule pinion and rotates the latter when the cross-bar is pressed. Further, when the door is being shut the socket can be prevented from moving by a catch, in order that the door can be closed, because without such a device the bolts would be pushed into the locked position before the door was closed. It is presupposed that a door of an emergency exit always opens outward from the endangered room or chamber.

One illustrative embodiment of my invention is represented by way of example in the accompanying drawing, wherein:—

Figure 1 is a front elevation showing my improved door-fastener in its unlocked position, Fig. 2 is a sectional elevation taken on the line A—B in Fig. 1, and Fig. 3 is a cross-section taken on the line C—D in Fig. 1.

Referring to the drawing, *a* designates the driving rod or cross-bar, by which the bascule bolts *b* and *c* can be moved into their locked or unlocked positions, and which is carried by the ring *d'* of the socket *d*. The latter has within it a tooth *e* which enters into a helical groove *p* in the pin *o* connected to or integral with the pinion *n* for driving the bolts, and when the socket is shifted axially this tooth rotates the pin and the pinion.

f designates a fitting on which a catch *g* is fulcrumed. The one end of the catch passes through the fitting *f* and the bushing *k* into the socket *d* and normally prevents this from moving axially. When the other hooked end of the catch is pulled the catch can be withdrawn from the socket. The movement of the socket is limited by a stop *h* which is provided on the fitting *f* and enters into a slot *i* in the socket. The bushing *k* attached to the case of the door-fastener guides the socket *d*. The member for driving the bolts *b*, *c* is made in one piece, its various parts being designated by the letters, *l*, *m*, *n*, *o* and *p*, *l* being the pinion, *m* its pivot in the end plate of the case, *n* a bearing shoulder in the bushing *k*, and *o* the driving pin having the helical groove *p*.

The doors or emergency exits provided with the described fastener are locked and opened as follows: When the socket *d* is held by the catch *g* it does not allow the bolts *b*, *c* to lock the door. Consequently, the door can be pulled powerfully into the door-case by means of the cross-bar *a*, and when the catch *g* has been rocked the socket *d* can be pulled. The detent *e* provided on the socket *d* then moves forward in the helical groove *p*, whereby the bolts are driven into their staples, boxes or the like. Thereupon, when the cross-bar *a* is pressed, the door is at once opened and the catch *g* falls into the socket *d* again.

I claim:—

1. In a door-fastener of the character described, the combination with a case and two bolts entering into the same, of a bushing attached to the case, a socket axially movable in the bushing, and a pin having a helical groove in the socket, said pin carrying a pinion coacting with and adapted rectilinearly to drive the bolts, and said socket having a projection entering into the helical groove.

2. In a door-fastener of the character described, the combination with a case and two bolts entering into the same, of a perforated bushing, a perforated fitting attached to the case and surrounding the bushing, a perforated socket axially movable in the bushing, and a pin having a helical groove in the socket, said pin carrying a pinion coacting with and adapted rectilinearly to drive the bolts, the socket having a tooth entering into the helical groove, and a detent fulcrumed on said fitting adapted to enter through the perforations in the fitting and bushing into the perforation in the socket and secure the latter in the unlocked position of the bolts.

3. In a door-fastener of the character de-

scribed, the combination with a case and two bolts entering into the same, of a bushing attached to the case, a socket axially movable a limited distance in the bushing, and a pin having a helical groove in the socket, said pin carrying a pinion coacting with and adapted rectilinearly to drive the bolts, and said socket having a projection entering into the helical groove, and means for temporarily retaining the socket in its innermost position.

In testimony whereof, I affix my signature in the presence of two witnesses.

OTTO KUBLANCK.

Witnesses:
HENRY HASPER,
WOLDEMAR HAUPT.