

G. KUPSCH.
SAFETY BARRING DEVICE FOR DOORS.

APPLICATION FILED OCT. 26, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

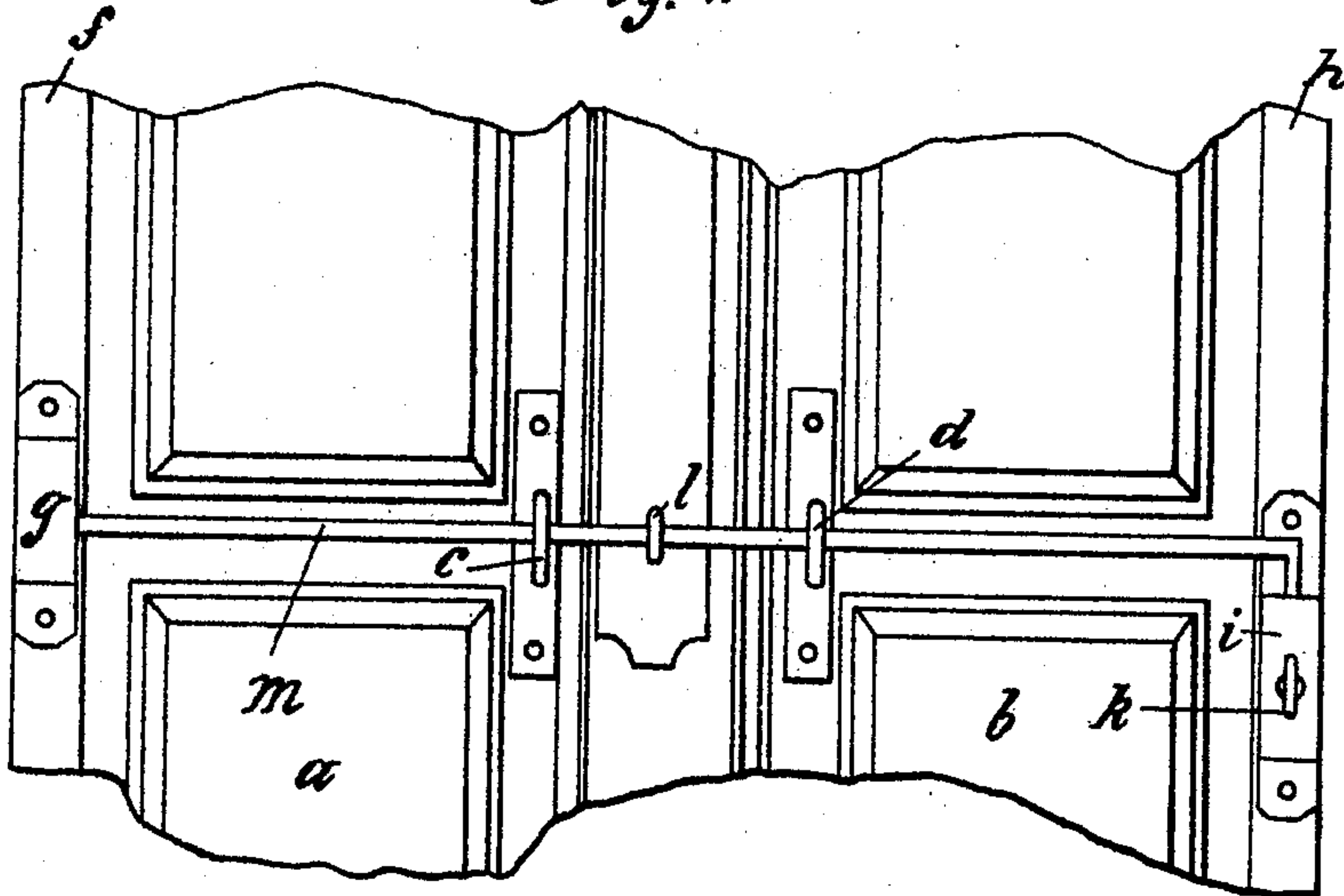


Fig. 2.

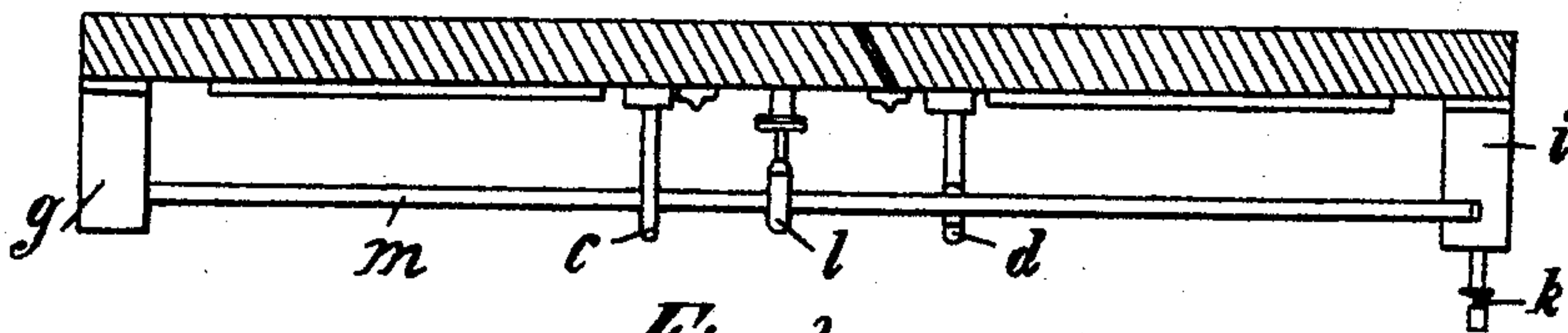


Fig. 3.

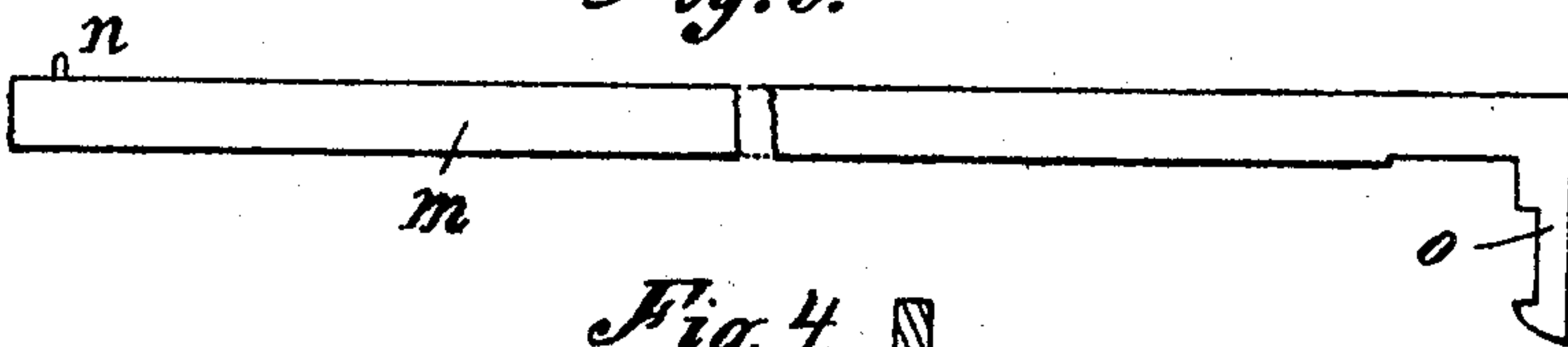
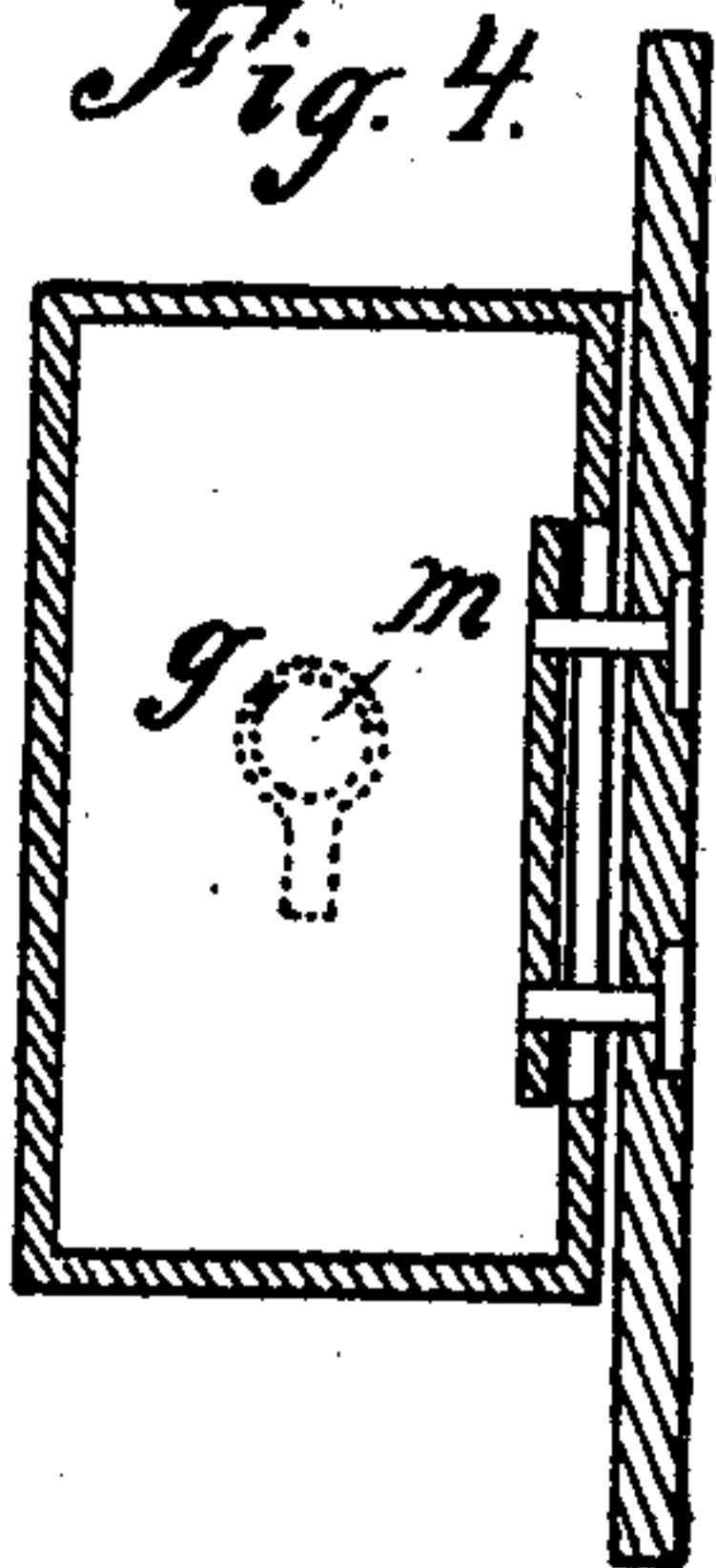


Fig. 4.



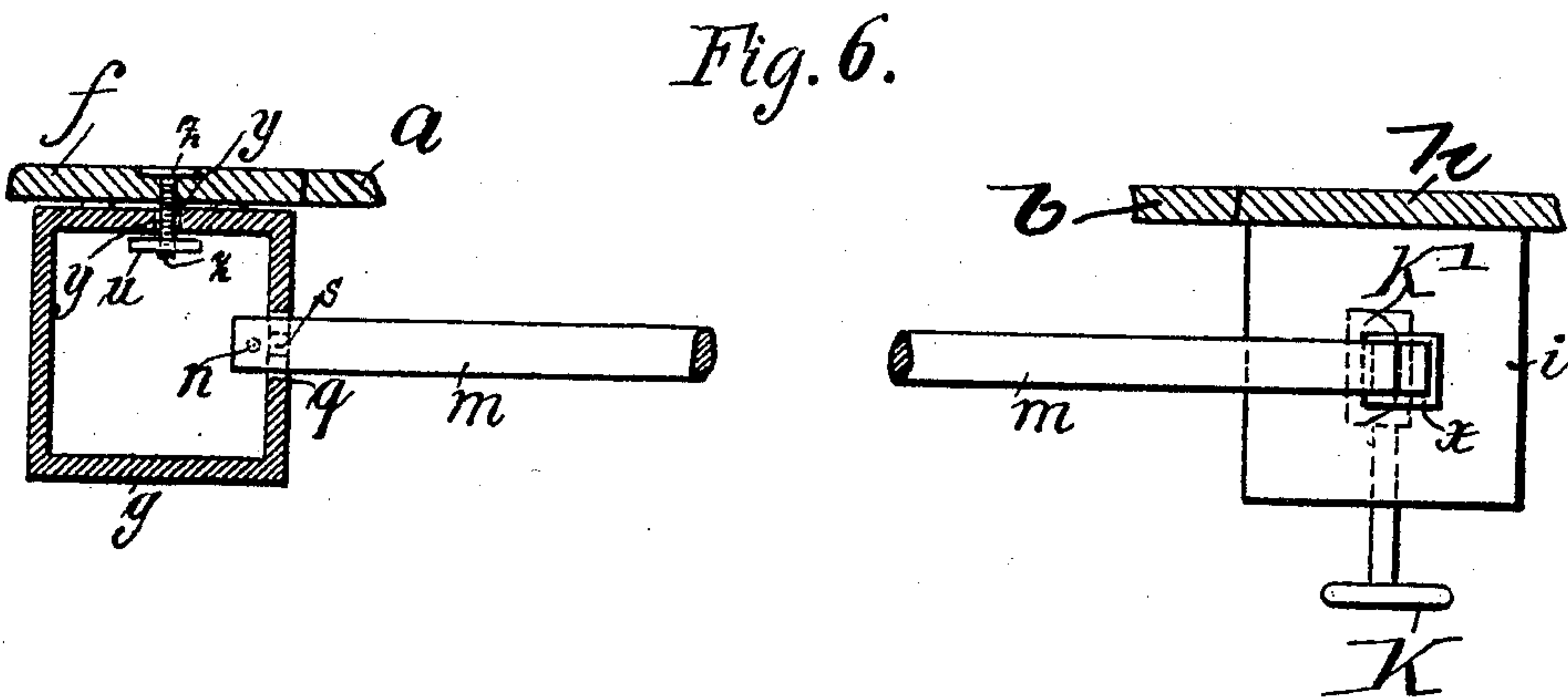
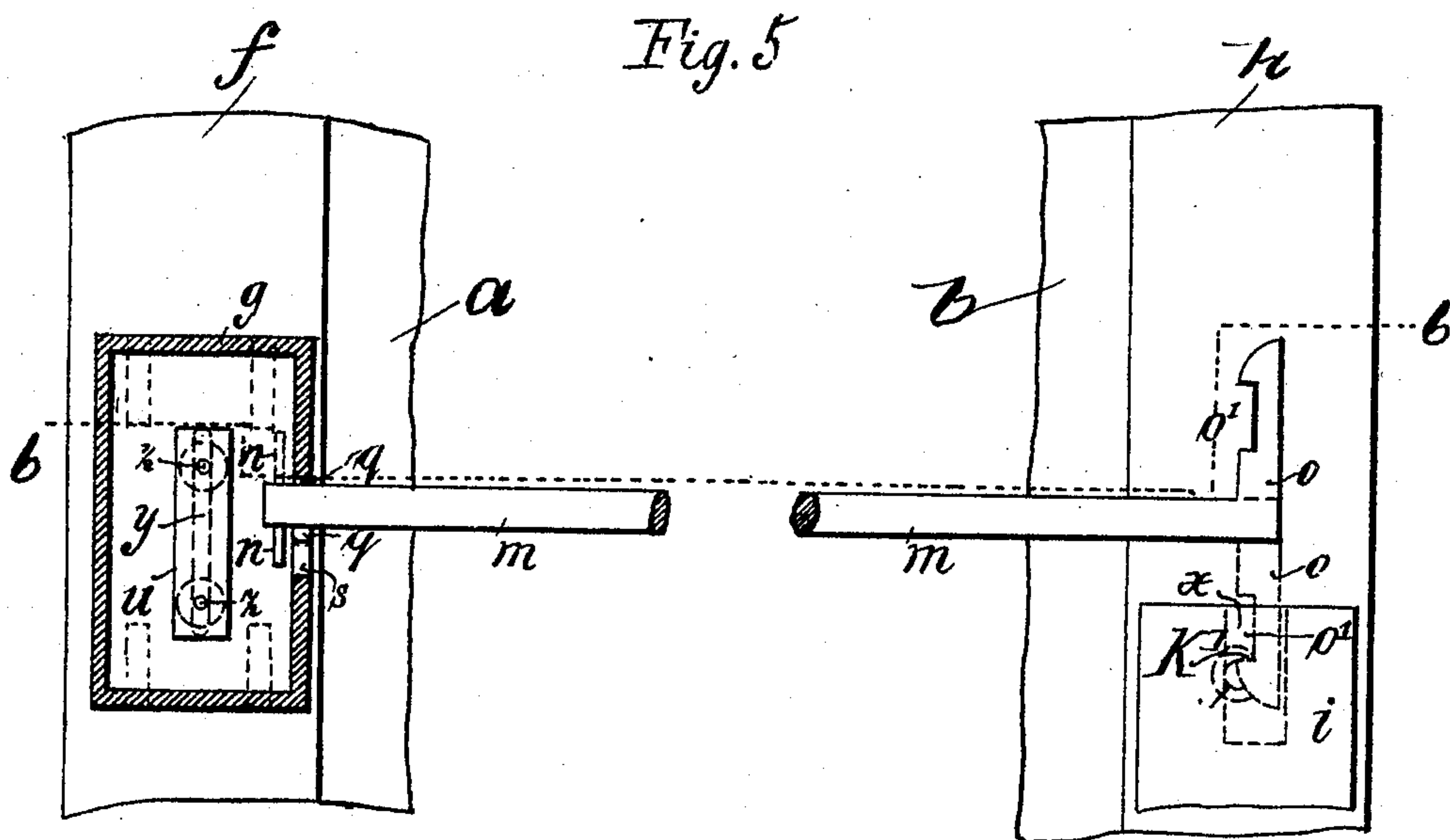
Witnesses
L. Waltman
C. Heymann

Inventor
Georg Kupsch
per B. Singer
Attorney

G. KUPSCH.
SAFETY BARRING DEVICE FOR DOORS.

APPLICATION FILED OCT. 26, 1904.

2 SHEETS—SHEET 2.



Witnesses:

C. H. Crawford
John Schuelldorf

Inventor:

Georg Kupsch

by B. Singer

Attorney

UNITED STATES PATENT OFFICE.

GEORG KUPSCH, OF BERLIN, GERMANY.

SAFETY BARRING DEVICE FOR DOORS.

No. 795,712.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed October 26, 1904. Serial No. 230,094.

To all whom it may concern:

Be it known that I, GEORG KUPSCH, a subject of the German Emperor, and a resident of Berlin, Germany, have invented certain new and useful Improvements in Safety Barring Devices for Doors and the Like, of which the following is a specification.

My invention relates to key retaining and locking devices for swinging doors.

My improved locking device consists of a bar adapted to be threaded in the aperture of a key and engaged and locked at its opposite ends in movable and rigidly-mounted locking-casings.

My invention will be more fully described in connection with the drawings, and will be more particularly pointed out in the appended claims.

In the drawings, Figure 1 represents in side elevation the central portion of two swinging doors and portions of the casings of the doorway, illustrating one method of applying my improved locking device. Fig. 2 is a horizontal sectional view on line 2 2 of Fig. 1. Fig. 3 shows my improved locking-bar detached from the door. Fig. 4 is a sectional view on line 4 4 of Fig. 1. Fig. 5 is a fragmentary detail view showing portions of the doors and casing thereof and my improved locking-bar shown inserted in one of the locking-casings. Fig. 6 is a horizontal sectional view on line 6 6 of Fig. 5.

Like characters of reference designate similar parts throughout the different figures of the drawings.

My improved locking-bar *m* is herein shown in connection with a pair of swinging doors *a* and *b*, hung upon the casings or door-frames *f* and *h*. It will be obvious, however, that the device of my invention may be applied to a single as well as a double door, and I do not wish to be limited to the precise application shown. The said doors *a* and *b* are provided with a key-operated lock (not shown in detail) located upon the door *a* and operated by a key *l*, which projects some distance beyond the inner face of the door. Each of said doors is preferably provided adjacent to and in horizontal alinement with said key with upwardly and downwardly opening hooks *d* and *c*. On the door-frame at the left of the doors, which in the drawings is indicated by *f*, is mounted a locking-casing *g*. Said casing comprises a closed structure consisting of top, bottom, and side walls and may be ornamented and adapted

for special forms of woodwork. The side wall of said casing *g* at the right is provided with a slot *q*, desirably somewhat enlarged with respect to and adapted to receive one end of the bar *m*. Said slot *q* is provided with a lower elongation *s*, adapted to receive a pin or locking member *n*, secured on the bar *m*. Said pin *n* is relatively reduced in size with respect to the locking-bar, and the slot *s* is preferably of sufficient size to receive the bar and pin when the bar is in the position shown in Fig. 5. The locking-casing *g* is secured to the door-frame *f* by means of a pair of bolts *z*, which project through a vertical slot *y*, formed in said casing. Said bolts are desirably provided with a flat bar or plate *u*, which overhangs the slot and supports the locking-casing closely adjacent the door-frame. It will be noted by reference to Fig. 5 that the bolts *z* are arranged to permit a slight vertical movement of the casing *g* in either an upward or downward direction, the purpose of which will be hereinafter more fully disclosed. The opposite end of the bar *m* is adapted to be locked in a casing *i*, rigidly secured to the door-frame *h*. Said casing *i* is provided with an aperture *x* in its top wall for the reception of a locking or jaw member *o*, having an open jaw *o'* formed on the bar *m*. Said casing *i* is provided with a locking-cam *K'*, Figs. 5 and 6, which is actuated by a key *K*. Said cam *K'* engages the jaw *o'* when the locking member is inserted in the casing *i* and serves to hold the bar in a locked position.

I will now describe the manner in which my improved locking device is operated. If the locking-bar *m* is to be used in connection with the key *l*, the latter is turned to lock the doors *a* and *b*, and the rod *m* is inserted through a suitable opening formed in said key. Assuming that the key and bar *m* are in a vertical or inclined position, the operator will next rotate the bar to a generally horizontal position, so that the latter will register and engage the upwardly and downwardly opening hooks *c* and *d*. When the bar *m* is in the position as shown in Fig. 5, it will be obvious that the bar may be freely moved toward the locking-casing *g*, inasmuch as the locking member *f* is at this time not in a position to engage the casing *i*. When the bar *m* has been moved to the left, so that the pin *n* has passed through the slot *s*, the bar *m* will be axially rotated approximately ninety degrees in order to effect insertion of

the locking member *o* in the casing *i*. It will be obvious by reference to Fig. 1 that in order to insert the locking member *o* it will be necessary to raise the right-hand end to the bar *m* slightly to bring the locking member *o* into a position to enter the slot *x*, which movement is permitted by the upwardly and downwardly opening hooks *d* and *c* and the movably-mounted casing *g*. When the locking member *o* enters the casing *i*, the locking member *n* will be in a position shown in dotted lines in Fig. 5, and the locking member *o* will occupy a lower position, as shown in dotted lines. The key *K* will now be turned to the right in order to engage the jaw *o'* by means of the cam *K'*, whereupon the bar will be firmly secured in place.

A great advantage of my invention resides in the fact that the door is not only securely barred in addition to being locked, but the key of said lock is effectively held and prevented from being turned either from the out or in side of the door. This feature is of great importance, since in many forms of bars heretofore used it has been found possible to pick the lock and by opening the door unseat the bar from its fastenings. It will be obvious that this could not possibly occur by the use of a bar which holds the key in a fixed position.

The device of my invention is very cheaply manufactured and is simple in construction and installation and affords the utmost security.

While I have herein shown and described a single embodiment of my invention, it will be obvious that changes may readily be made therein without departing from the spirit of the invention.

Therefore what I claim, and desire to secure by Letters Patent, is—

1. A key retaining and locking device for doors comprising a bar adapted for engagement with the key, and separate locking devices securing the ends of said bar.

2. A key retaining and locking device for doors comprising a bar adapted for engagement with an inserted key, oppositely-opening hooks on either side of said key engaging said bar, and separate locking devices for securing the opposite ends of said bar.

3. A locking device for doors comprising a locking-bar, a locking device for one end of said bar comprising a movably-mounted casing, and a locking device for the remaining end of the bar comprising a rigidly-mounted casing.

4. A locking device for doors comprising a locking-bar, oppositely-opening hooks engaging said bar between its ends, a locking device for one end of said bar comprising a movably-mounted casing, and a locking device for the remaining end of said bar comprising a rigidly-mounted casing.

5. A locking device for doors comprising a locking-bar, oppositely-opening hooks engaging said bar between its ends, a locking device for one end of said bar consisting of a movable casing having a slotted portion for the insertion of one end of said bar, a locking device for the opposite end of said bar comprising a rigidly-mounted casing, said bar having oppositely-projecting locking members, and means whereby upon the insertion of one end of the bar into said movable casing the same may be rotated to lock said end and permit insertion of the remaining locking member in said stationary casing.

6. A locking device for doors comprising a locking-bar, oppositely-opening hooks engaging said bar between its ends, a locking device for one end of said bar consisting of a movable casing having a slotted portion for the insertion of one end of said bar, a locking device for the opposite end of said bar comprising a rigidly-mounted casing, said bar having oppositely-projecting locking members and means whereby upon the insertion of one end of the bar into said movable casing the same may be rotated to lock said end and permit insertion of the locking member of the remaining end in said stationary casing, said stationary casing having key-operating devices for locking the inserted bar in place.

7. A key retaining and locking device for doors provided with an independent key-operated lock comprising a bar adapted to be inserted through the key, a locking device for said bar at one end comprising a movably-mounted casing, a locking device for the remaining end of said bar comprising a rigidly-mounted casing, and means whereby upon the insertion of one end of the bar in said movably-mounted casing the bar may be rotated to lock said parts and permit the insertion of the remaining end in said stationary casing.

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

GEORG KUPSCH.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.