

No. 804,803.

PATENTED NOV. 14, 1905.

T. O. GARRETT.
NUT LOCK.

APPLICATION FILED APR. 8, 1905.

Fig. 1.

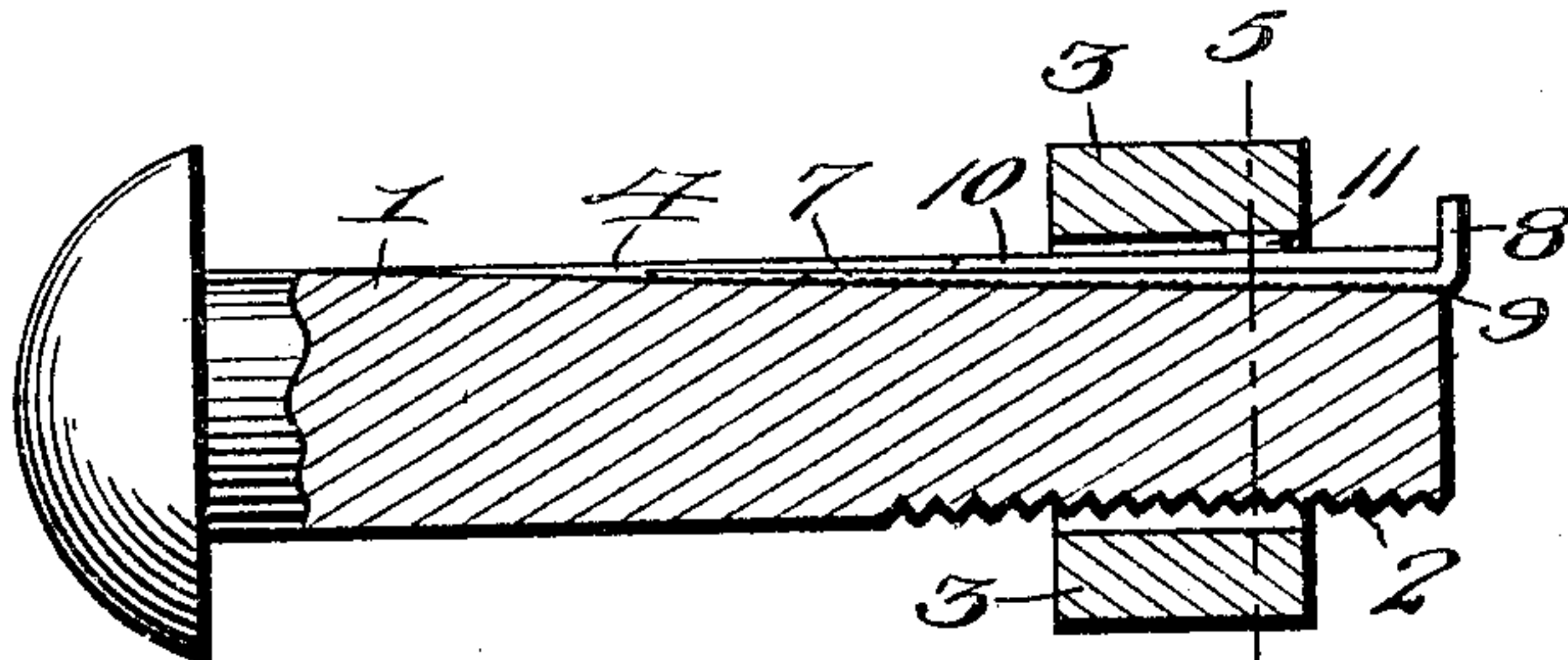


Fig. 2.

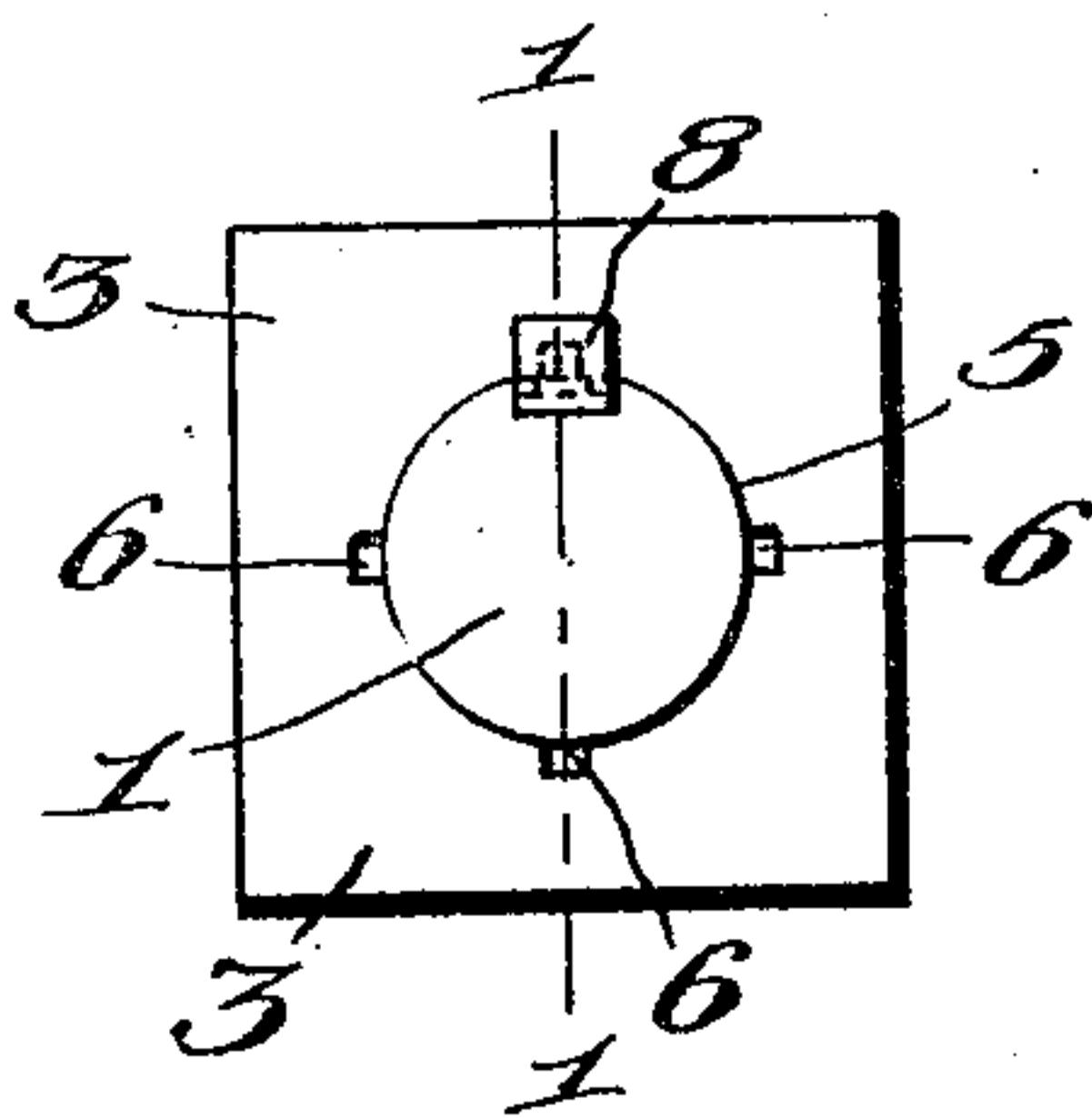


Fig. 5.

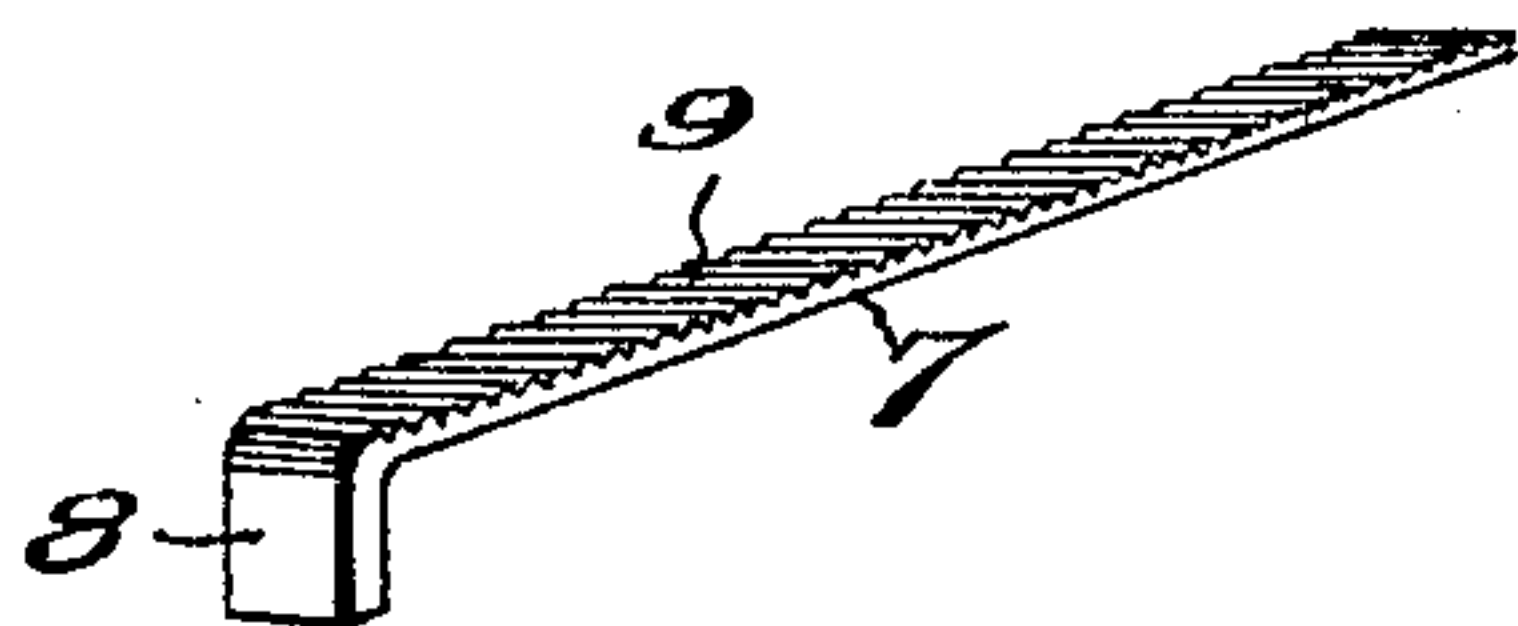
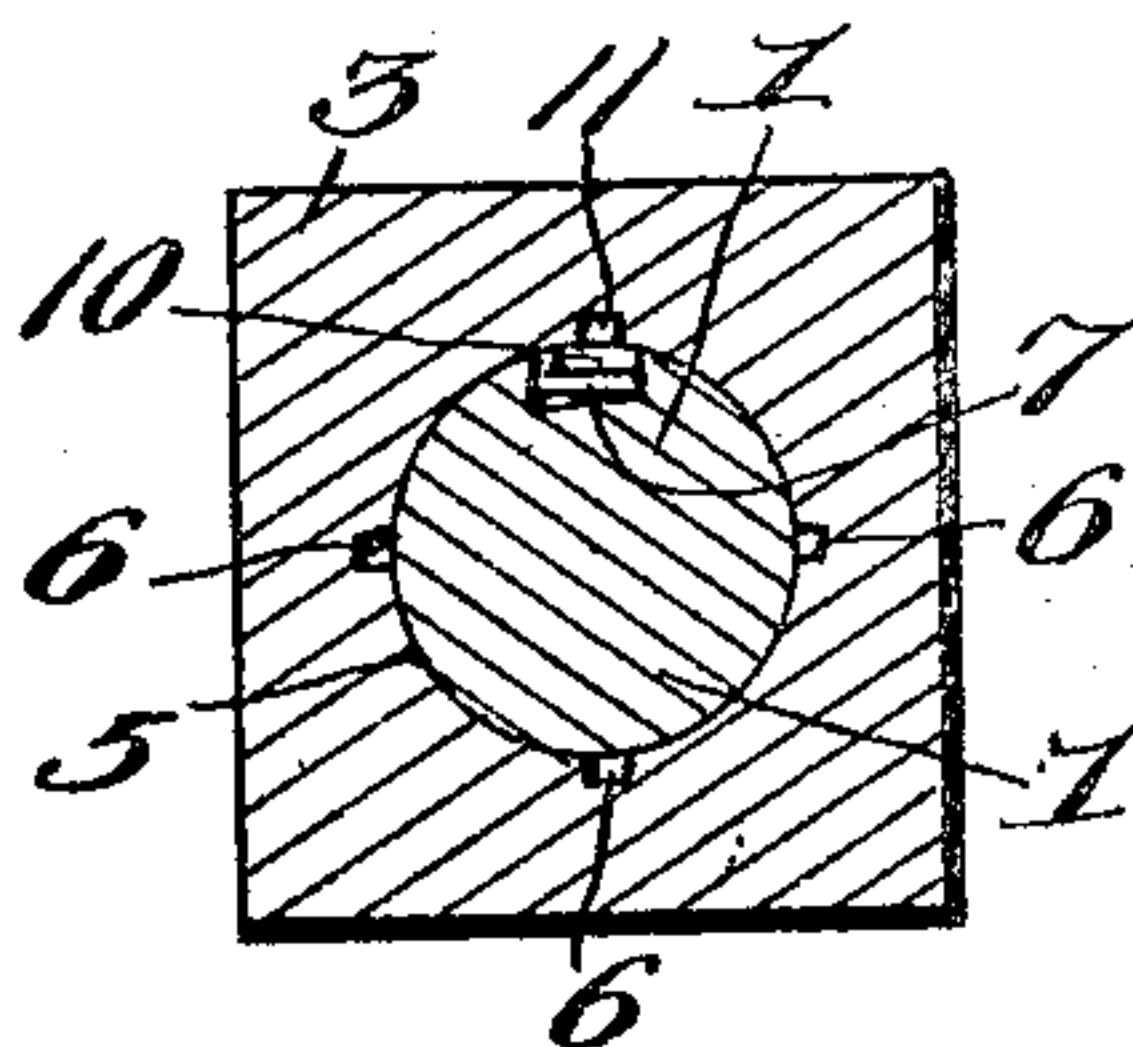


Fig. 3.

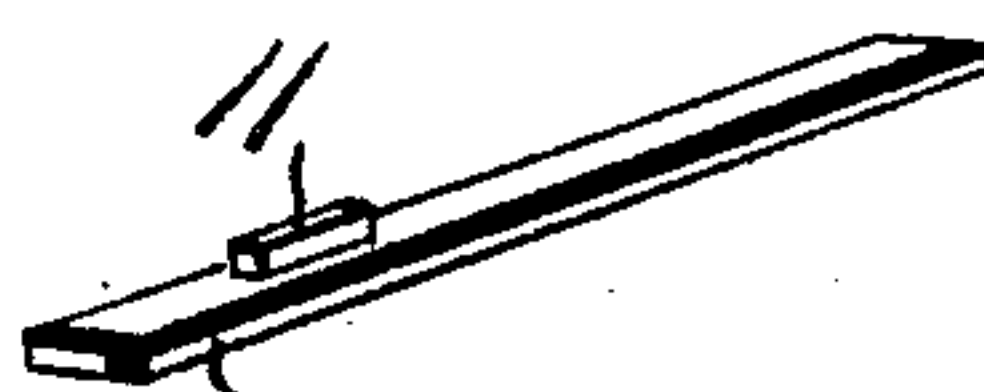


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS O. GARRETT, OF CARBONDALE, ILLINOIS.

NUT-LOCK.

No. 804,803.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed April 8, 1905. Serial No. 254,524.

To all whom it may concern:

Be it known that I, THOMAS O. GARRETT, a citizen of the United States of America, residing at Carbondale, in the county of Jackson and State of Illinois, have invented new and useful Improvements in Nut-Locks, of which the following is a specification.

This invention relates to nut-locks, and has for its objects to produce a simple inexpensive device of this character in which the nut will be fixed securely against accidental movement upon the bolt, one in which the nut may be tightened to the proper degree, and one wherein the nut may be readily released and removed when circumstances require.

To these ends the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a view, partly in section, of a nut-lock embodying the invention, the section being taken on the line 1 1 of Fig. 2. Fig. 2 is an end elevation of the same. Fig. 3 is a perspective view of the primary locking member or key. Fig. 4 is a similar view of the secondary member or key. Fig. 5 is a transverse section taken on the line 5 5 of Fig. 1.

Referring to the drawings, 1 designates a bolt having a threaded portion 2, designed to receive a nut 3, these parts, except as hereinafter explained, being of the usual or any appropriate construction and material.

In accordance with my invention I form in the bolt 1 a longitudinally-extending groove 4 of gradually-decreasing depth from its outer toward its inner end and having its bottom inclined transversely, as seen in Fig. 5, whereby the groove is of greater depth at one of its transverse edges than at the other, for a purpose which will more fully hereinafter appear.

The nut 3 is provided marginally around its bolt-receiving opening 5 with a plurality of longitudinally-extending grooves or recesses 6, any one of which may during the operation of tightening the nut be brought into register with the groove 4, the grooves 6 being of less than half the width of the groove 4, as seen in Fig. 5.

Designed to seat within the groove 4 is a primary locking member or key 7, provided at its outer end with an upturned portion or finger 8 and having formed upon its normally inner face transversely-disposed teeth or serrations 9, which when the key is in position maintain the latter in secure frictional engagement with the bolt 1.

Provided for coöperation with the key 7 to lock the nut upon the bolt is a secondary locking member or key 10 of less width than the key 7 and having formed at a suitable point between its ends and upon its normally outer face an engaging portion or lug 11, designed to fit the grooves or recesses 6, this key, which is shorter than the key 7, being adapted to seat upon the outer smooth face of the latter and to be retained in place by the upturned portion or finger 8, which in practice bears in the outer end of the key 10.

In practice after the nut has been applied to the bolt 1 and properly tightened one of the grooves 6 is brought into register with the groove 4 and the key 7 seated in the latter, the key 10 being thereafter applied in position and secured in place by bending the end 8 upward, as heretofore explained. After arrangement of the keys in position with the lug 11 seated in one of the grooves 6 the nut is turned slightly for moving the key 10 bodily in a transverse direction until it comes over the shallow portion of the groove 4, thereby causing the key 7 to bind tightly in said groove, as will be readily understood. To release the nut, the latter is turned slightly backward, thus moving the key 10 to position over the deeper portion of the groove, whereupon the key 7 may be readily removed for releasing and permitting withdrawal of the key 10, whereby the nut may be removed from the bolt.

From the foregoing it is apparent that I produce a simple inexpensive device which is admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus described my invention, what I claim is—

1. In a device of the class described, a bolt provided with a longitudinal groove, a primary key designed to seat in said groove and having an inner serrated face for frictional engagement with a bolt, a nut tapped onto the latter and provided with a groove adapted to register with the first-named groove, and a secondary key having an engaging portion designed to seat in the groove in the nut, the outer terminal of the primary key being provided with an upturned portion adapted to bear at the end of the secondary key.

2. In a device of the class described, a bolt provided with a longitudinal groove having its

bottom inclined transversely, a primary key
designed to seat in said groove and having an
inner serrated face for frictional engagement
with the bolt, a nut threaded onto the bolt and
5 having a groove adapted to register with the
first-named groove, and a secondary key of
lesser width than the primary key and having
an engaging portion designed to seat in the
groove within the nut, the secondary key be-
10 ing adapted, when in locking position, to seat

upon the outer face of the primary key and
over the shallow portion of the groove in the
bolt.

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

THOMAS O. GARRETT.

Witnesses:

ALOIS STARZINGER,
AARON J. RAUCH.