

(No Model.)

G. P. CRAGIN.
NUT LOCK.

No. 305,052.

Patented Sept. 16, 1884.

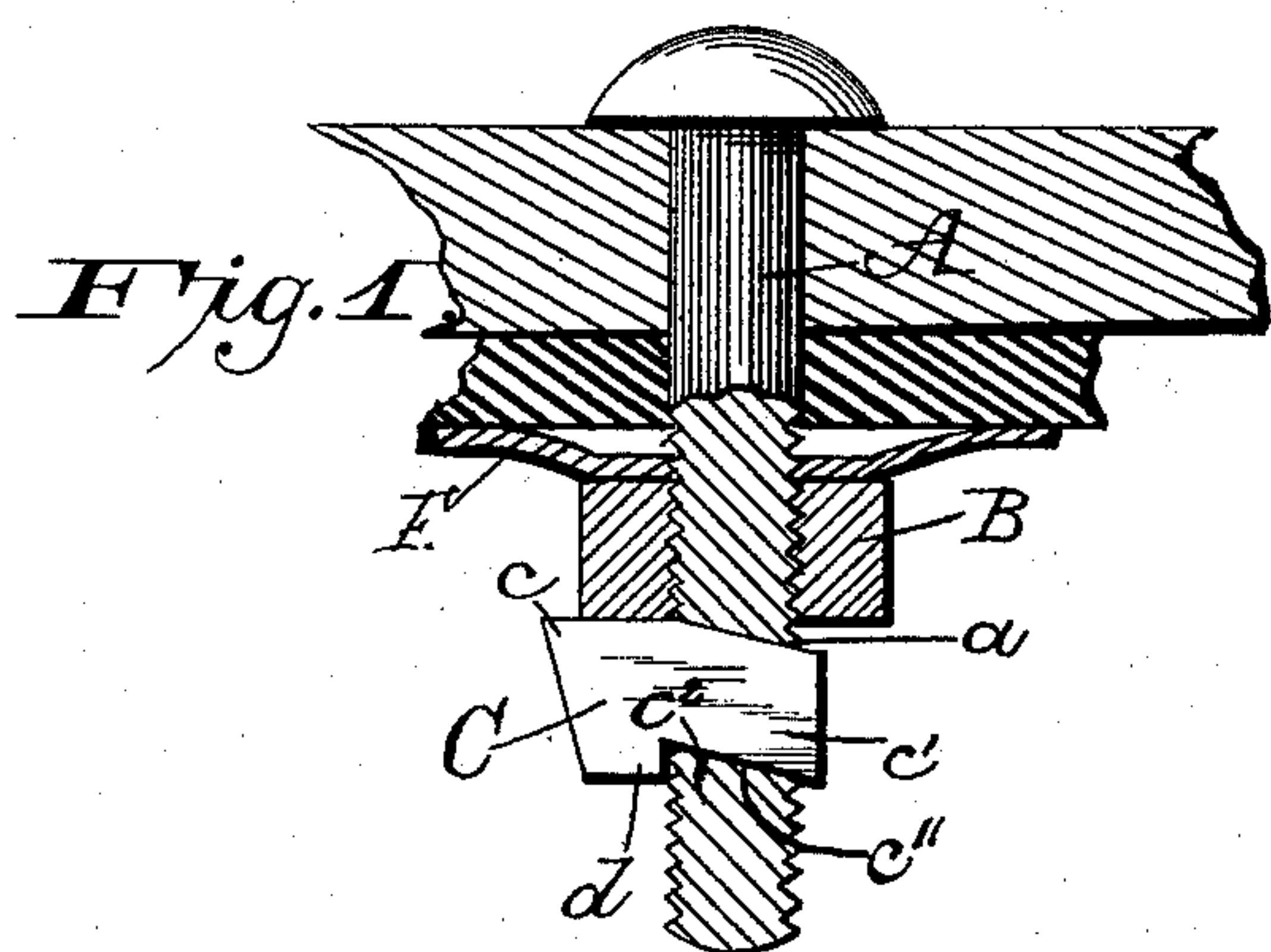


Fig. 2.

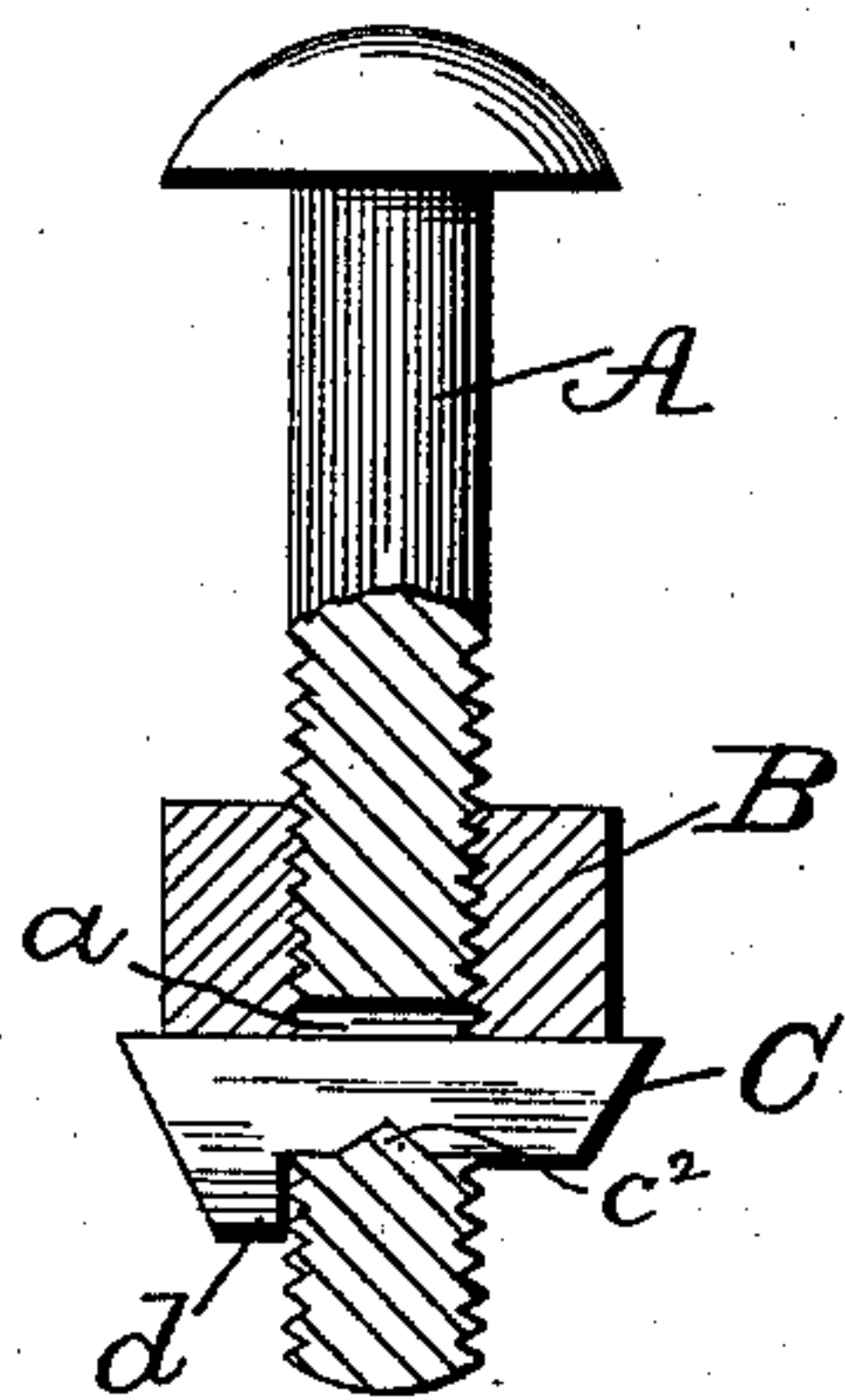
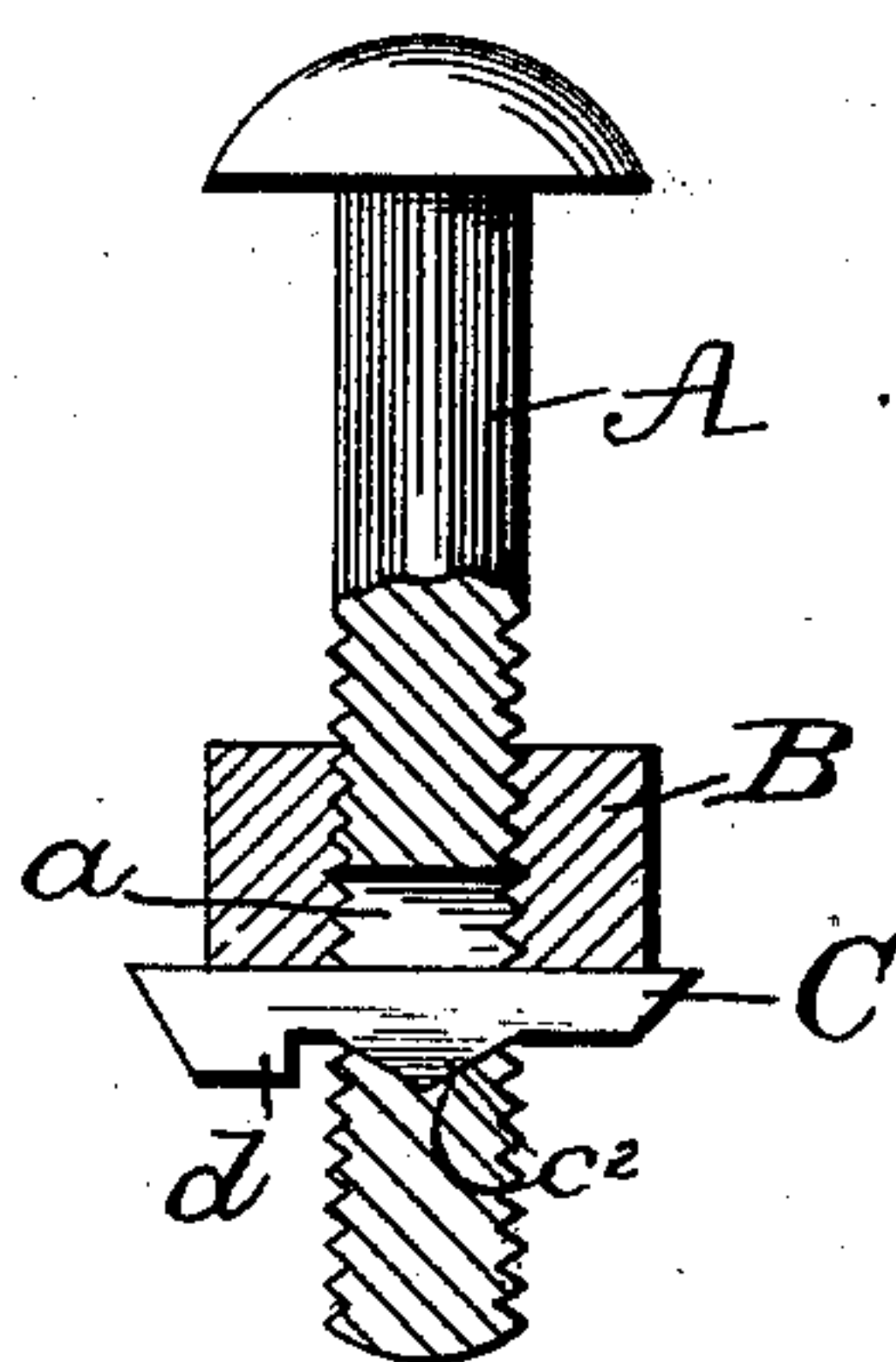


Fig. 3.



Witnesses:

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Inventor:

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by *Sumner*
Att'y.

UNITED STATES PATENT OFFICE.

GEORGE P. CRAGIN, OF ADA, MINNESOTA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 305,052, dated September 16, 1884.

Application filed April 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. CRAGIN, a citizen of the United States, residing at Ada, in the county of Norman and State of Minnesota, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in "top nut-locks;" and it consists, essentially, in the combination of a bolt having a slot formed with an inclined wall, a plain-faced nut, and a locking-key fitting the slot and having a locking projection outside the bolt, all of which will be more fully hereinafter explained.

In the accompanying drawings, Figures 1, 2, and 3 show different forms of nut-locks, all embodied in my invention, Fig. 1 showing the device in connection with a rail-joint.

A represents, in Fig. 1, an ordinary threaded bolt, near the entering end of which is formed a transverse slot, *a*. Both sides of this slot are inclined from the horizontal in one direction only, as shown.

B represents the nut, which is in all respects of ordinary form, having a square or polygonal periphery, and plane bearing-faces at both ends.

C represents the locking-key, which has a straight portion, *c*, and an inclined portion, *c'*, the latter of which enters and fits closely in the slot *a*. The forming of the inclined portion *c'* makes a shoulder, *d*, which bears against the side of the bolt outside the slot and prevents the key from entering too far into the slot. Now, it is evident that should the nut be forced or accidentally turned outward on the bolt its plane face will bear upon the edge

of the part *c* of the key, which tightens the key in the slot and prevents the possibility of its removal.

In Fig. 2 the wall of the slot is inclined toward and then away from the nut, as shown at *c''*, while the edge of the key is correspondingly inclined to fit. In Fig. 3 the wall of the slot is inclined away from and then toward the nut, while the key is formed with a correspondingly-inclined edge, as shown at *c''*, to fit such slot. In Figs. 2 and 3 the keys in both forms are provided with the locking projection *d*.

It will be seen that the locking of the parts in this device depends entirely on the relative shapes of the key and slot, the plane-faced nut simply giving the pressure required to bring these parts into engagement.

A spring-washer may be, and preferably is, interposed between the nut and the fish-plate or other surface, as shown in Fig. 1, where F is the spring-washer, which tends to force the nut outward, and to aid the tendency of such a nut to unscrew with the effect before described.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a nut-lock, the combination of the bolt having a slot provided with an inclined wall, of a plane-faced nut, and of a locking-key shaped to fit the inclined wall of the slot in the bolt, substantially as described.

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

GEORGE P. CRAGIN.

Witnesses:

STANLY W. FISK,
GARRETT L. THORPE.