

No. 709,433.

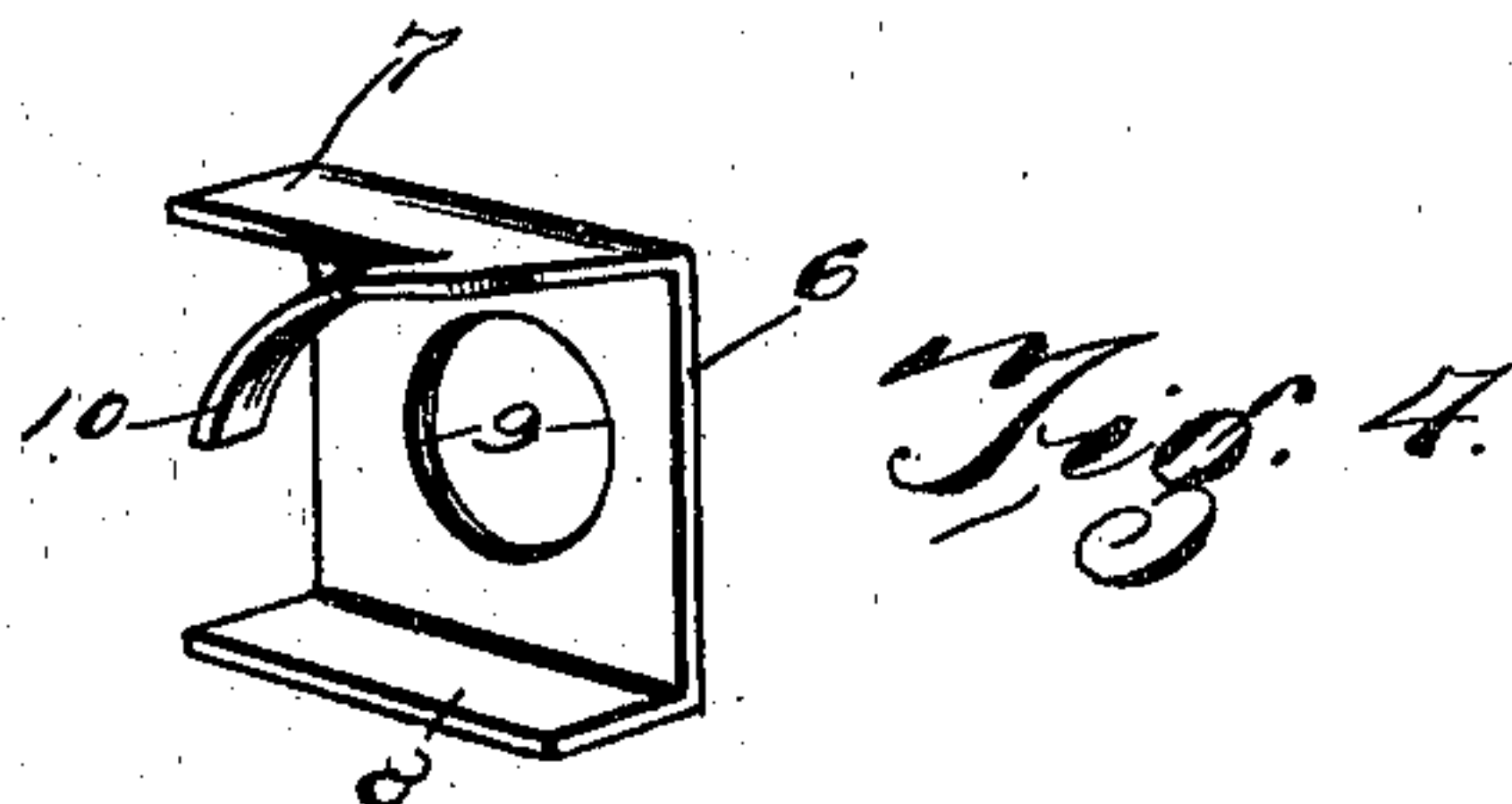
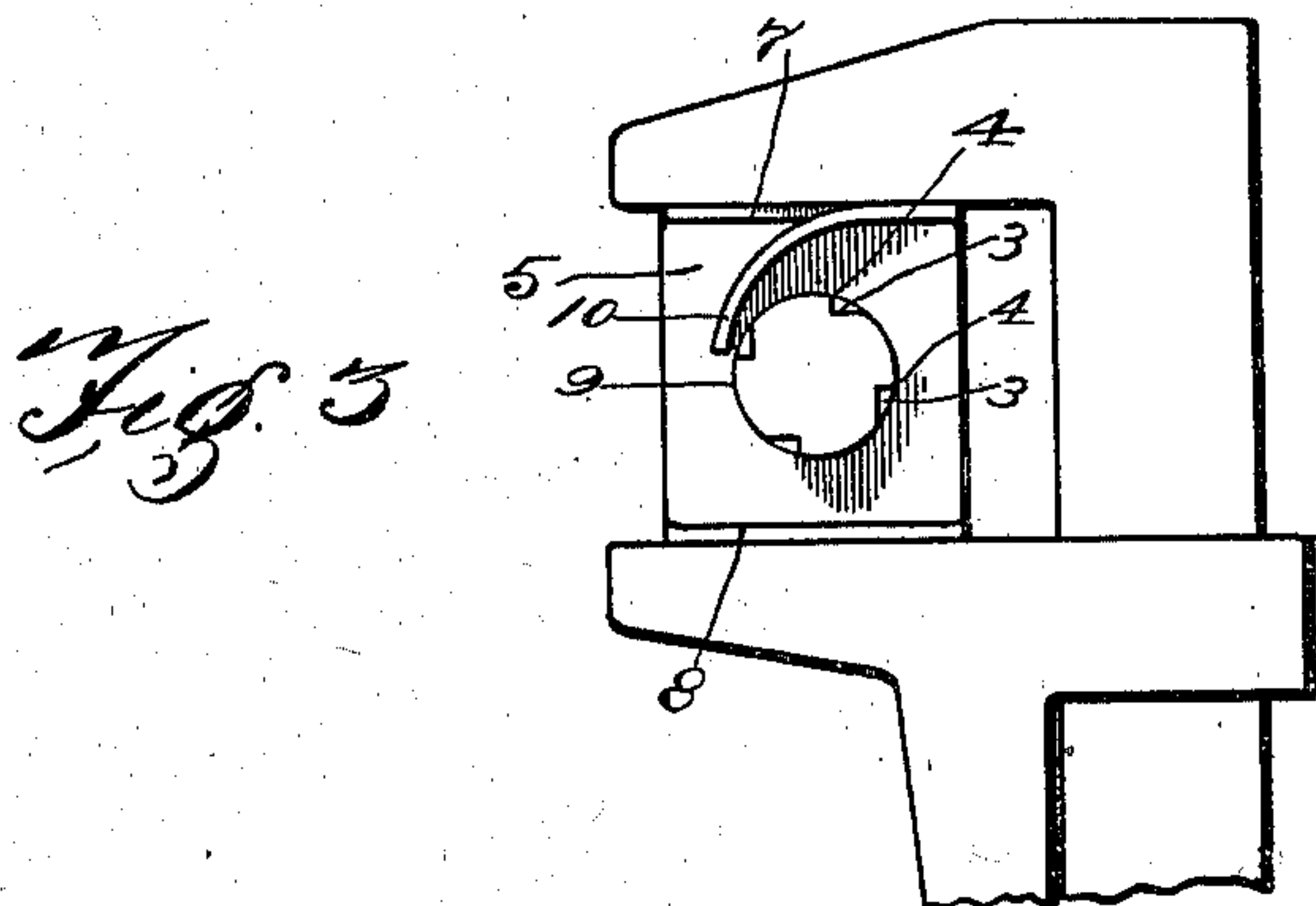
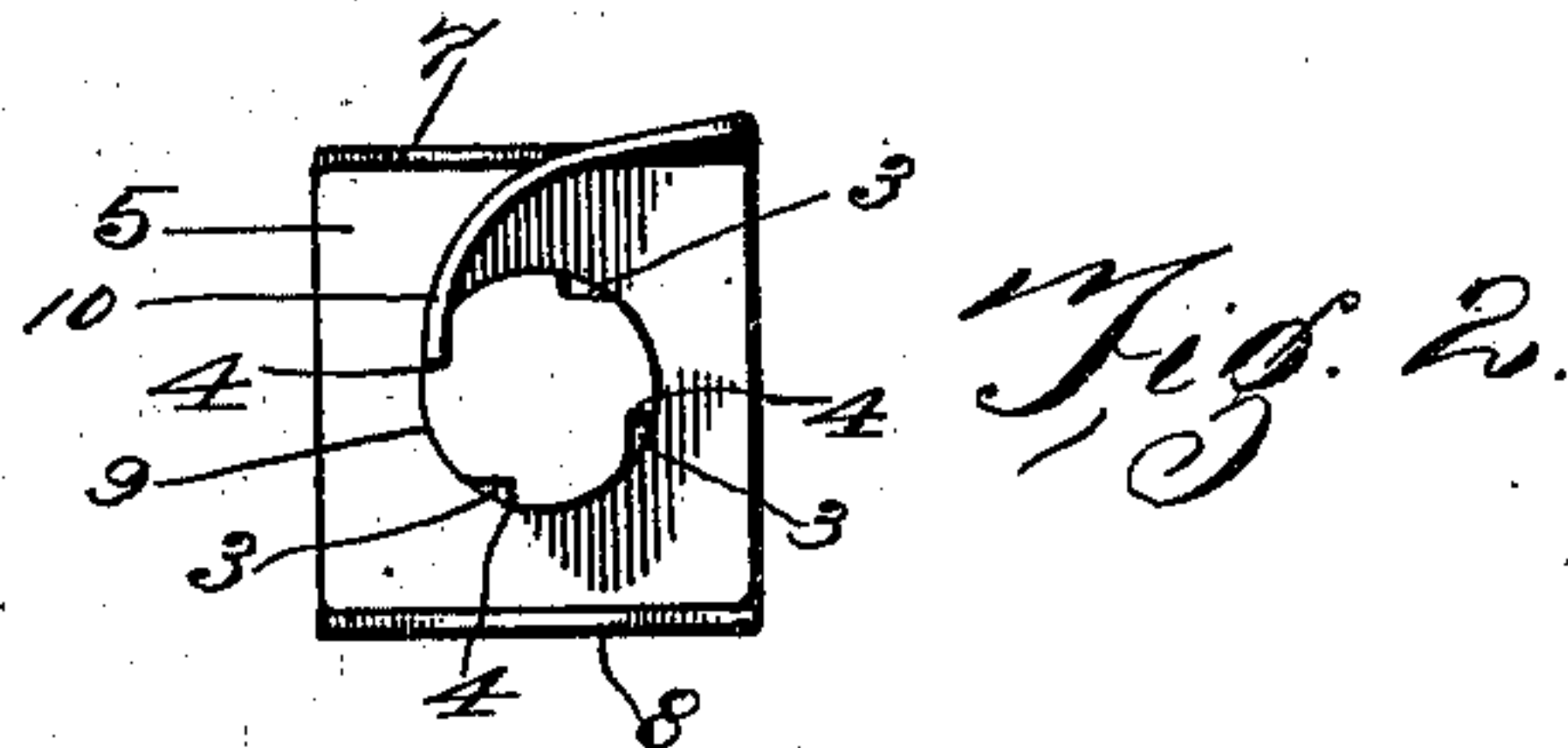
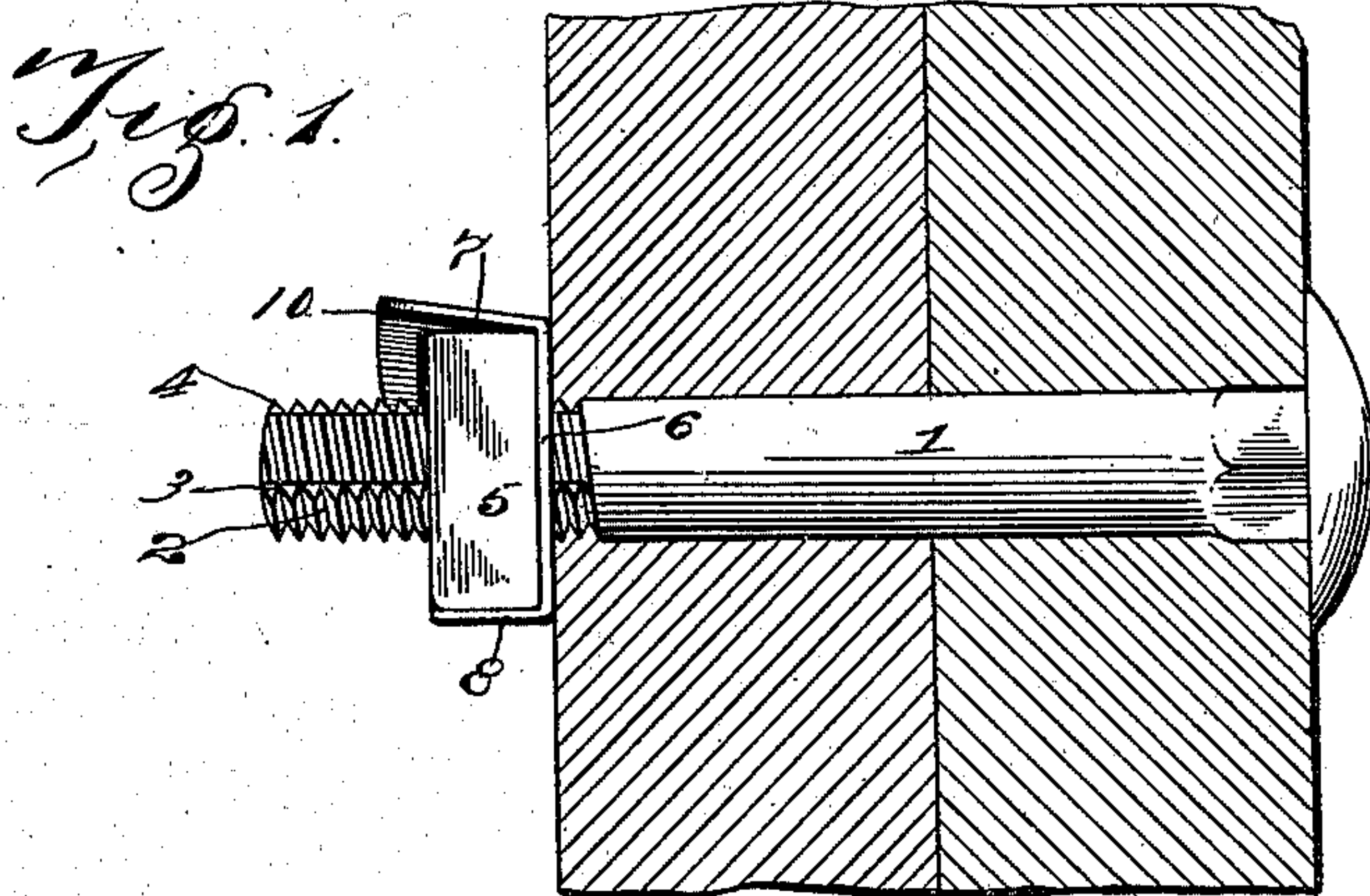
Patented Sept. 16, 1902.

S. C. BAUGHN, JR.

NUT LOCK.

(Application filed Feb. 28, 1901. Renewed Feb. 13, 1902.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

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NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 709,433, dated September 16, 1902.

Application filed February 28, 1901. Renewed February 13, 1902. Serial No. 93,944. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL C. BAUGHN, Jr., a citizen of the United States, residing at Comer, in the county of McLean and State of Kentucky, have invented a new and useful Nut-Lock, of which the following is a specification.

This invention relates to nut-locks; and the object of the same is to provide simple and effective means for securing a nut against movement after it has been applied and embodying structural features for easily releasing the nut by the application of a wrench or like device thereto.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a bolt and nut shown applied to elements which are connected thereby and embodying the features of the improvement. Fig. 2 is an end elevation of the bolt end and nut, showing the locking position of the improved attachment. Fig. 3 is a view similar to Fig. 2, showing a wrench applied to the nut and attachment and by compression separating the locking portion of the attachment from the bolt to permit the nut to be run off. Fig. 4 is a detail perspective view of the improved locking attachment.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a bolt of any preferred length or dimension and having a screw-threaded extremity 2, formed with longitudinally-extending grooves 3, circumferentially arranged thereon at intervals and having abutting shoulders 4. A nut 5 of ordinary form is applied to the said screw-threaded end of the bolt, and engaging the said nut is a washer 6, having upper and lower right-angular flanges 7 and 8 to respectively bear against opposite side edges of the nut, and also provided with a central opening 9 to permit the washer as an entirety to be easily slipped over and withdrawn from the screw-threaded extremity of the bolt. The flange 7 is considerably broader than the flange 8 and is cut longitudinally outside the

front terminal of the side edge of the nut with which it engages for a portion of its length and shaped into a depending curved form to provide a pawl to normally engage either one of the grooves 3 when the nut is applied to the screw-threaded extremity of the bolt, the flange 7 at the integral juncture of the pawl therewith being flared upwardly, as at 10, and normally standing above and out of contact with the adjacent side edge of the nut. The pawl and upwardly-flared portion 10 of the flange 7 are tempered to give them the necessary resiliency to perform their individual functions, or the entire washer may be formed from suitable spring or resilient metal.

In screwing the nut 5 on the bolt extremity 2 the washer 6 is turned therewith, and the free end of the pawl of the flange 7 freely plays over the grooves 3; but an outward movement of the nut will cause the free end of said pawl to engage one of the grooves 3 and prevent the nut from having further outward movement until the pawl end is released from the groove engaged thereby. In removing the nut and disengaging the washer-pawl from locked position a wrench or other implement is preferably employed, though other compressing means may be used, and when the wrench-jaws are applied they are caused to engage the flanges 7 and 8 of the washer and compress the upwardly-flaring portion 10 toward the adjacent nut edge, and thereby throw the free end of the pawl outwardly from the groove with which it has been in engagement, as shown by Fig. 3, and permit the nut to be removed from the bolt extremity without liability of the pawl end catching in any of the grooves in the latter.

The improved lock is simple in its construction and can be easily and readily applied and cheaply manufactured. It is intended to be used with any form of devices, such as rail-joints, bridge couplings or irons, as well as in wagon structure, and for all other purposes where it is desired to have the nut of a connecting-bolt resist vibration, jar, or other accidental force having a tendency to release the same.

Having thus described the invention, what is claimed as new is—

The combination with a bolt having a screw-threaded extremity formed with a series of longitudinally-extending grooves, and a nut to removably engage said extremity, of
5 a washer removably applied to the nut and bolt and having oppositely-disposed right-angular flanges to rest against opposite side edges of the nut, one flange being wider than the other and cut free longitudinally for a
10 greater portion of its length to form a depending resilient pawl which is regularly curved downwardly and loosely projects over the outer face of the nut to have its free end enter either one of the grooves in the bolt,
15 the flange carrying the pawl at the point of juncture of the latter therewith at one end being flared outwardly from and fully out of contact with the adjacent portion of the edge

of the nut and at an inclination to the adjacent portion of the flange, said flared portion
20 of the flange and pawl being located to one side of the center of the nut and also inclining in a transverse direction inwardly toward the inner side of the nut and main body of the washer, whereby a compression of the inclined portions of the flange and pawl toward the nut edge will positively disengage
25 the free end of the pawl from the bolt-groove.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
30 the presence of two witnesses.

SAMUEL C. BAUGHN, JR.

Witnesses:

L. E. ^{his} + MCDANIEL,

^{mark}
W. B. WILSON.