

(No Model.)

S. GISSINGER.  
NUT LOCK.

No. 442,970.

Patented Dec. 16, 1890.

Fig. 1.

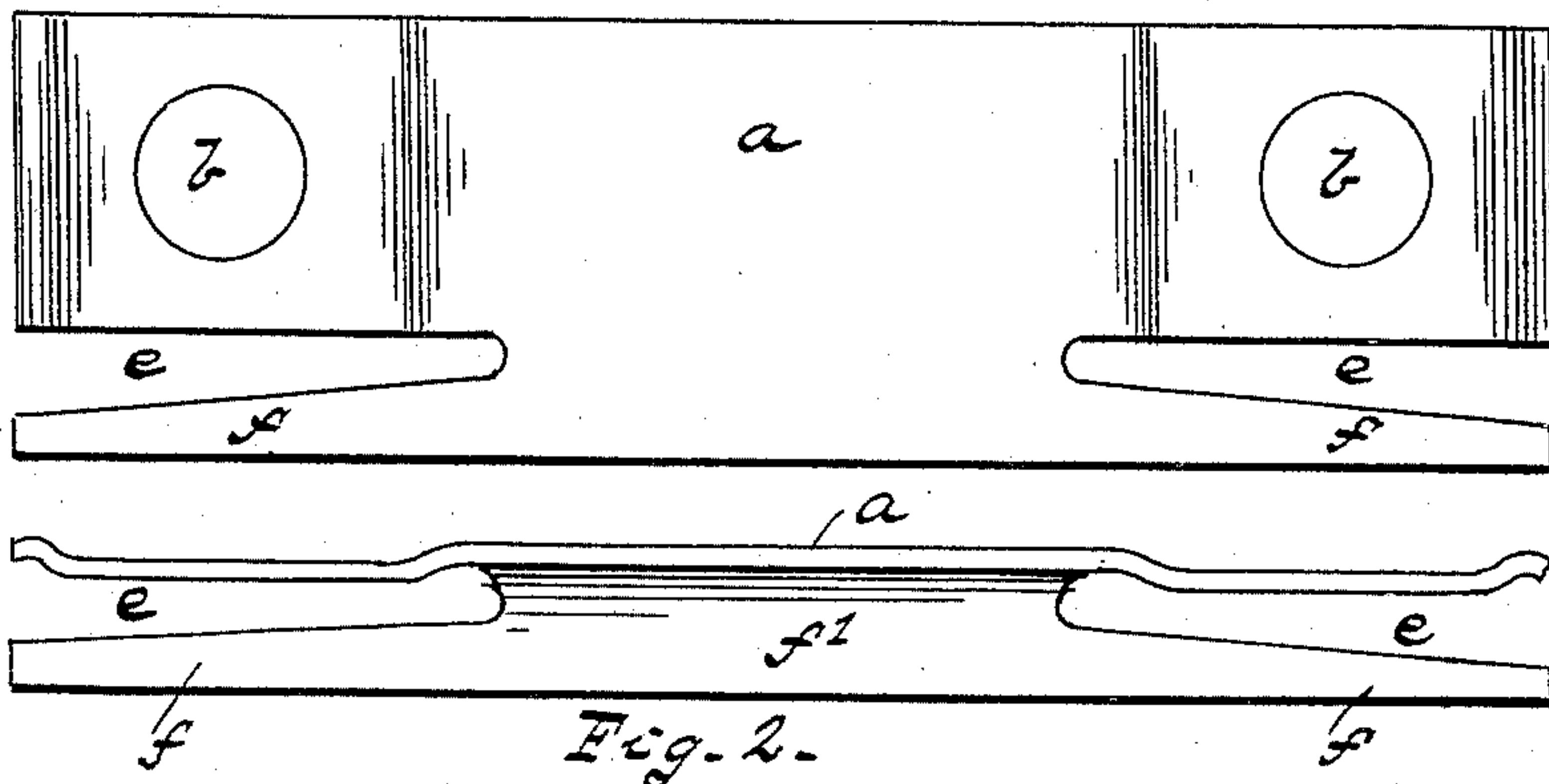


Fig. 2.

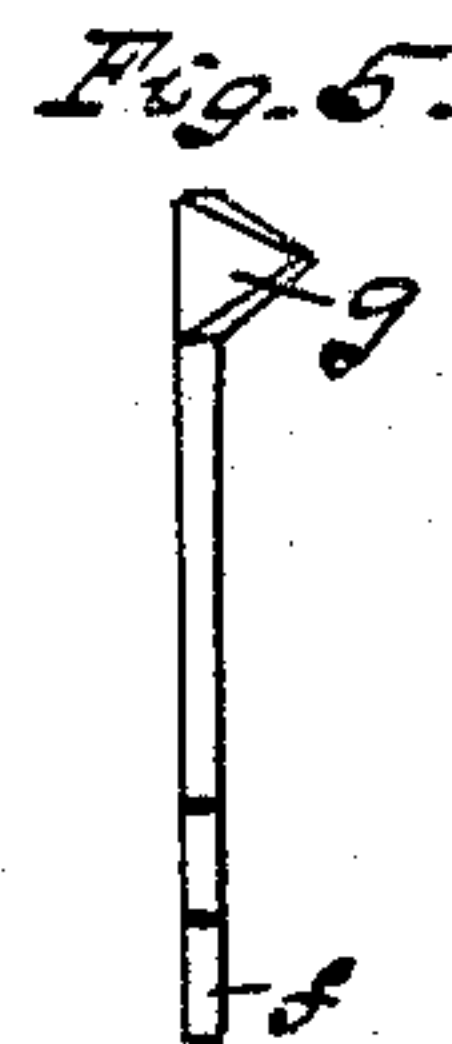
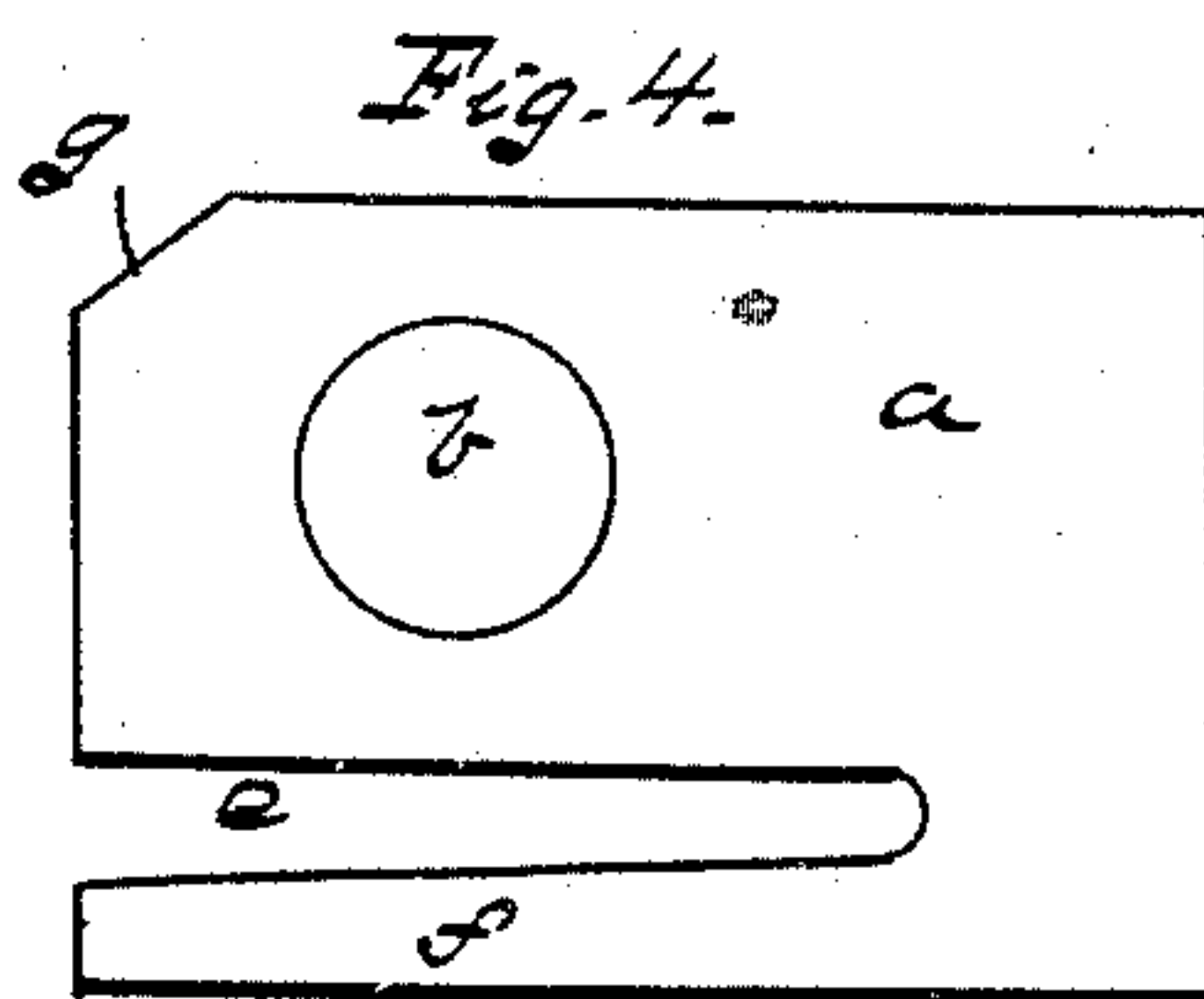
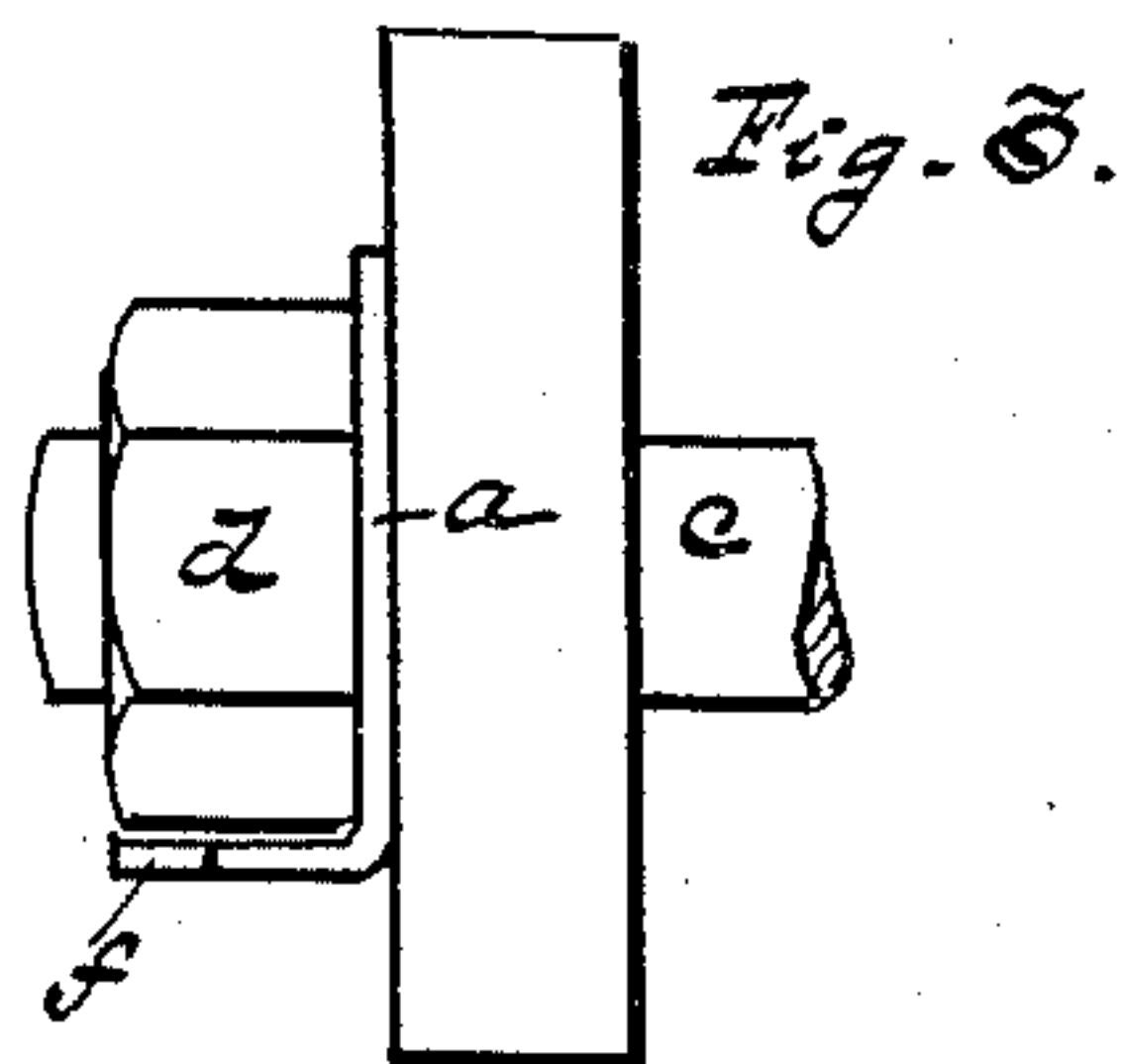


Fig. 6.

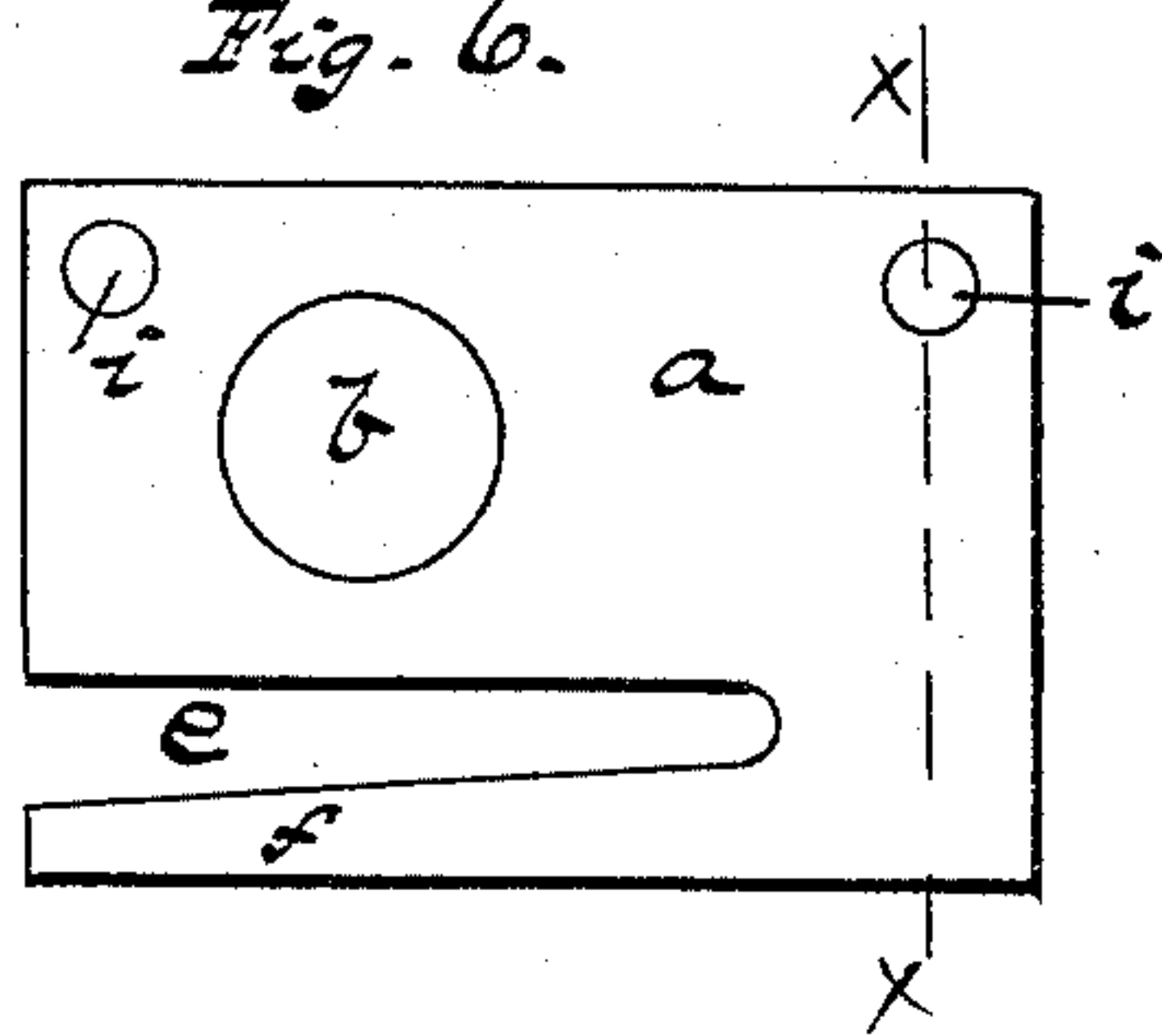


Fig. 7.



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# UNITED STATES PATENT OFFICE.

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## NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 442,970, dated December 16, 1890.

Application filed December 12, 1887. Serial No. 257,719. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL GISSINGER, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in nut-locks; and it consists of a locking-plate having a longitudinal cut-out portion or open-ended slot formed therein near one edge and terminating at a point within the opposite end of the plate, said plate being bent at right angles to the body thereof on a line projected beyond the terminus of the slot, thereby forming a spring-tongue whose greatest width lies at right angles to the body of the plate, whereby one face of said tongue is adapted to impinge against the nut.

My invention further consists in the combination, with a bolt and a nut fitted thereon, of a locking-plate having a spring-tongue made integral at one end with the body of the plate and free at its opposite end, the greatest transverse width of said spring-tongue lying at right angles to the body of the plate, and one face of the tongue impinging against one end of the nut, as will be hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a front elevation of my improved nut-locking device previous to lower portion being bent at right angles. Fig. 2 is a plan view of the same, showing the lower portion or locking device bent to occupy the proper position. Fig. 3 is an end elevation of my improved nut-lock, showing the manner in which the same is applied to a nut and bolt. Fig. 4 is a front elevation of a blank, such as I prefer to use when a single nut-lock is required against a soft or wooden surface, the one corner of which is bent to act as a barb and driven into the surface against which the device is placed. Fig. 5 is an edge view of the same. Fig. 6 is a front elevation of a single nut-lock such as I prefer to use against a

hard metallic surface, in which there are one or more projections formed on the rear surface by means of a center punch, which is placed in small recesses formed in the plate against which it is placed. Fig. 7 is an edge elevation of the same.

To put my invention into practice, I provide a rectangular metallic plate *a*, having two circular openings *b* through the same, which allows the two bolts *c* to pass through the same. This plate *a*, by means of suitable tools, is bent outwardly about the circular openings *b*, which form a spring-washer for the nut *d*. Beneath each of the openings *b* a portion *e* of the plate *a* is removed, and the remaining part *f*' below the upper line of this cut is bent at a right angle with the plate *a*, which portion *f* acts as a nut-lock, the separated portion *f* resting against the lower face of the nut *d*. (See Fig. 3.)

When this nut-lock is used in connection with a railway-joint, the bolts of the same are passed through the circular openings *b* and the nut *d* screwed tightly in position, which can easily be done by means of the separated portion *f* yielding and allowing the angles of the nut *d* to pass.

When locking a single nut and bolt with this device against a wooden or soft surface, I use a device such as I have shown at Figs. 4 and 5 on the drawing. The barb *g*, entering the wood, will prevent the washer or plate *a* from turning, and the tongue *f* lock the nut *d*. A similar device is used for locking nut *d* against a metallic surface, except that one or more projections *i* are formed on the rear surface of the plate *a*, which enter corresponding impressions formed in the surface against which it is placed.

I am aware that prior to my invention a nut-locking plate has been provided with short incisions or cuts, and that the sheared metal has been bent laterally of the plate to bring the edge of the metal or lip against the edge of the nut. My invention is distinguished from these prior devices in that I remove a portion of the metal to form an open-ended slot in and a short distance from one edge of the plate and substantially parallel with one of the edges thereof. This open-ended slot or cut-out portion extends to a point beyond the bolt-hole, and the lower part



of the plate is then bent at a right angle to the body thereof, the bend being formed on line projected beyond and in the plane of the cut-out portion or open-ended slot. By thus removing a part of the metal in the manner described I am enabled to provide a spring-tongue at the lower edge of the plate, which tongue is made integral therewith, and the face (not the edge) of this spring tongue is adapted to bear or press against the lower edge of the nut. As the edge of the spring-tongue which adjoins the body of the plate does not come in contact with the plate and the end of the tongue is free and unconfined, it is adapted to move or give a limited distance, sufficient to enable the angles of the nut to turn and clear the tongue when considerable force is applied to the nut to tighten or remove it. It will be seen that one edge of the plate, including the tongue thereof, is bent at right angles to the body of the plate, whereby the face of the tongue is caused to bear against the edge of the nut.

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

1. A locking-plate having a longitudinal cut-out portion or open-ended slot formed

therein near one edge and terminating at a point within the opposite end of the plate, said plate being bent at right angles to the body thereof on a line projected beyond the terminus of the slot, thereby forming a spring-tongue whose greatest width lies at right angles to the body of the plate, whereby one face of said tongue is adapted to impinge against the nut, substantially as and for the purpose described.

2. In a nut-lock, the combination, with the bolt and the nut fitted thereon, of a locking-plate having a spring-tongue made integral at one end with the body of the plate and free at its opposite end, the greatest transverse width of said spring-tongue lying at right angles to the body of the plate and one face of the tongue impinging against one edge of the nut, substantially as and for the purpose described.

In testimony that I claim the foregoing I hereunto affix my signature this 8th day of November, 1887.

SAMUEL GISSINGER. [L. S.]

In presence of—

C. C. LEE,

M. E. HARRISON.