

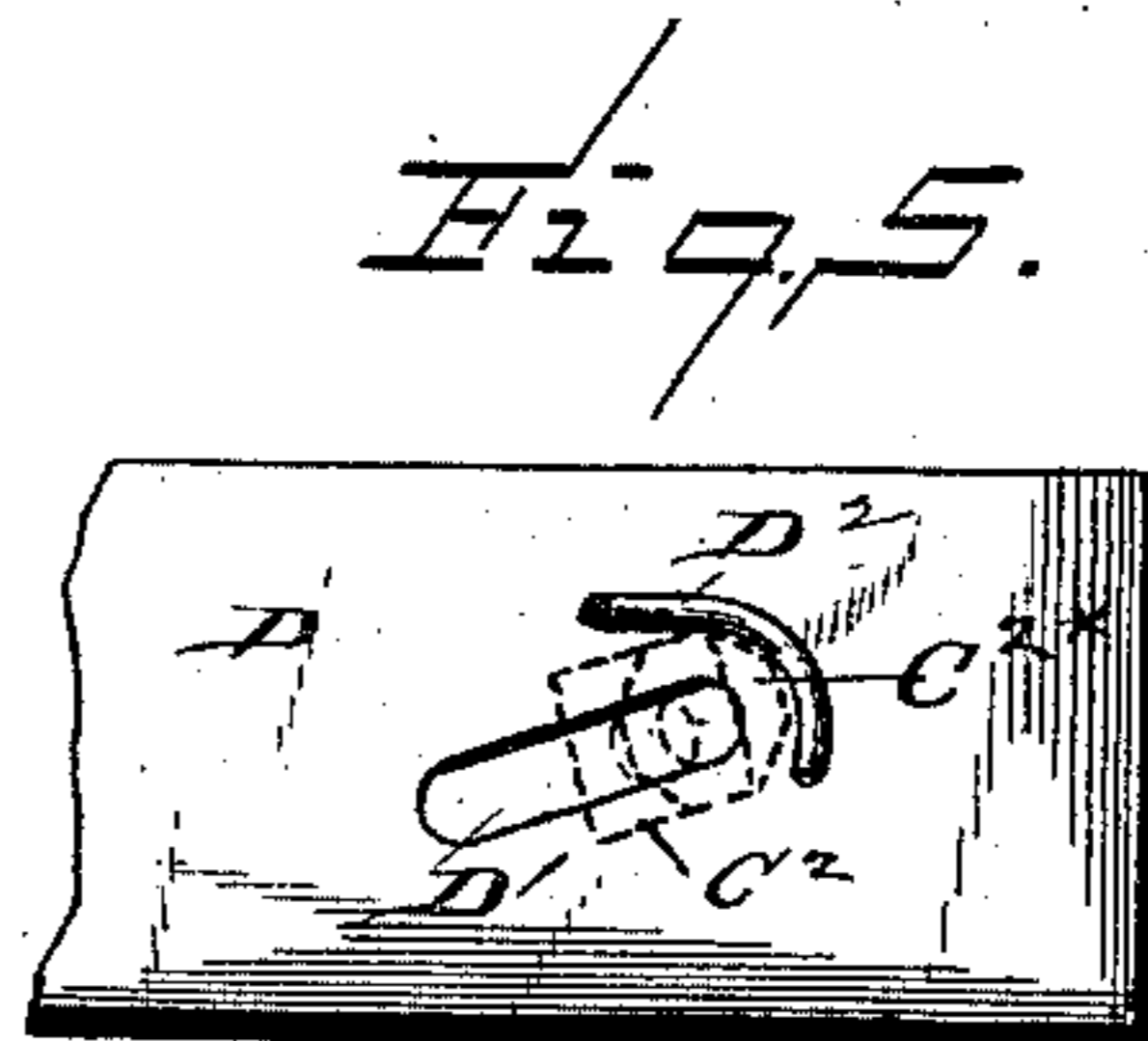
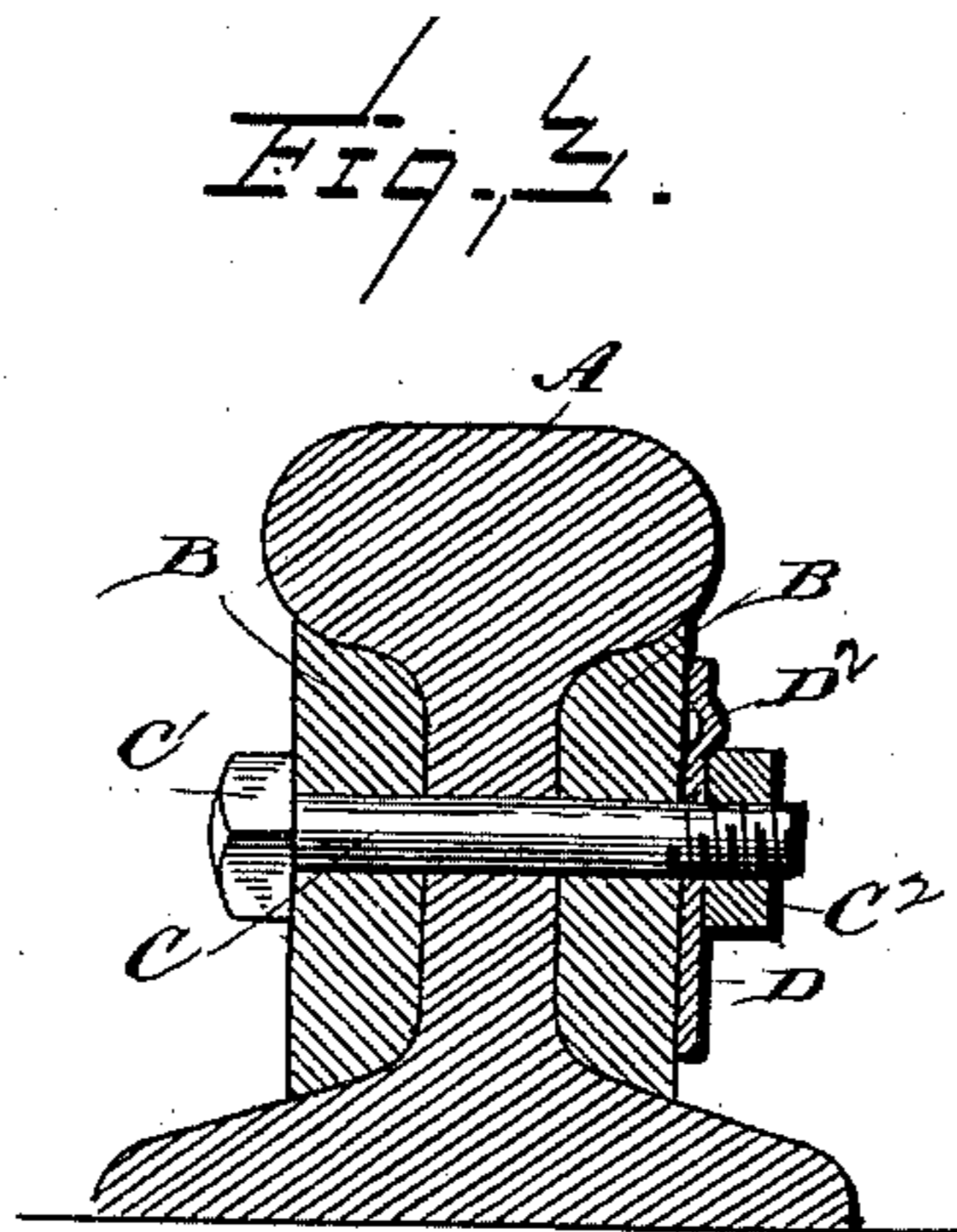
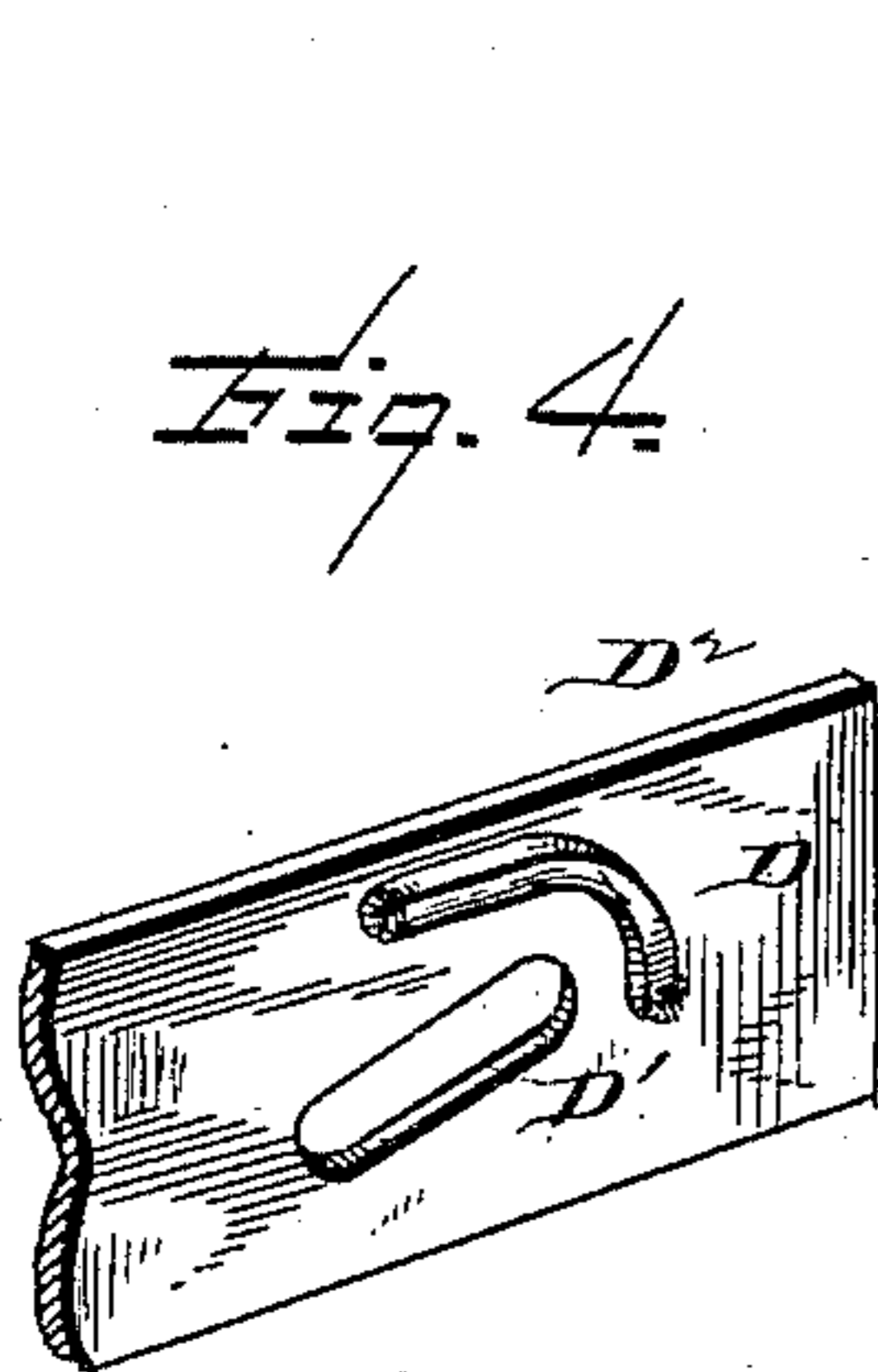
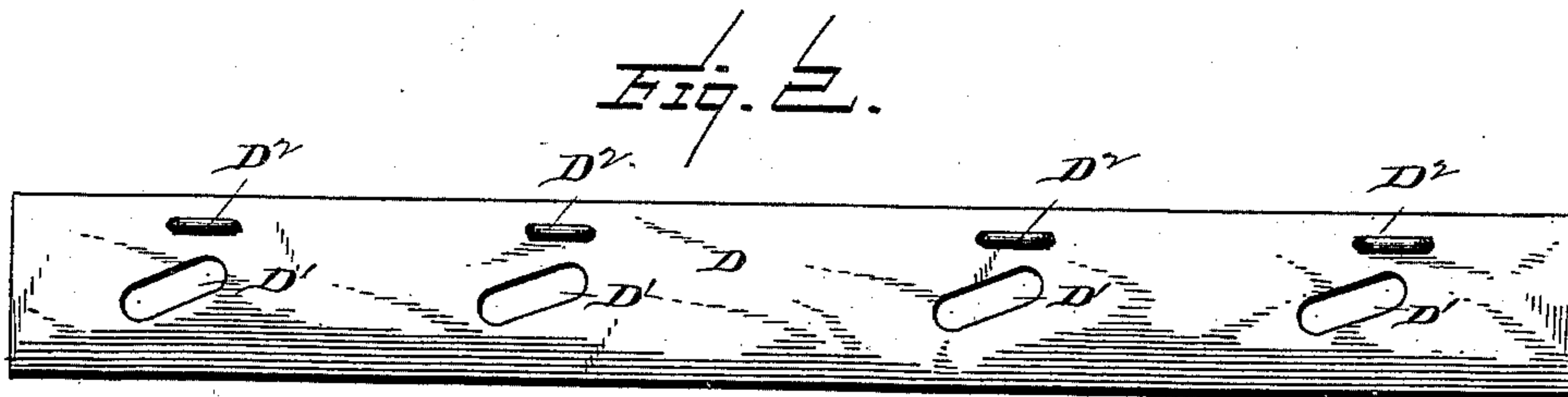
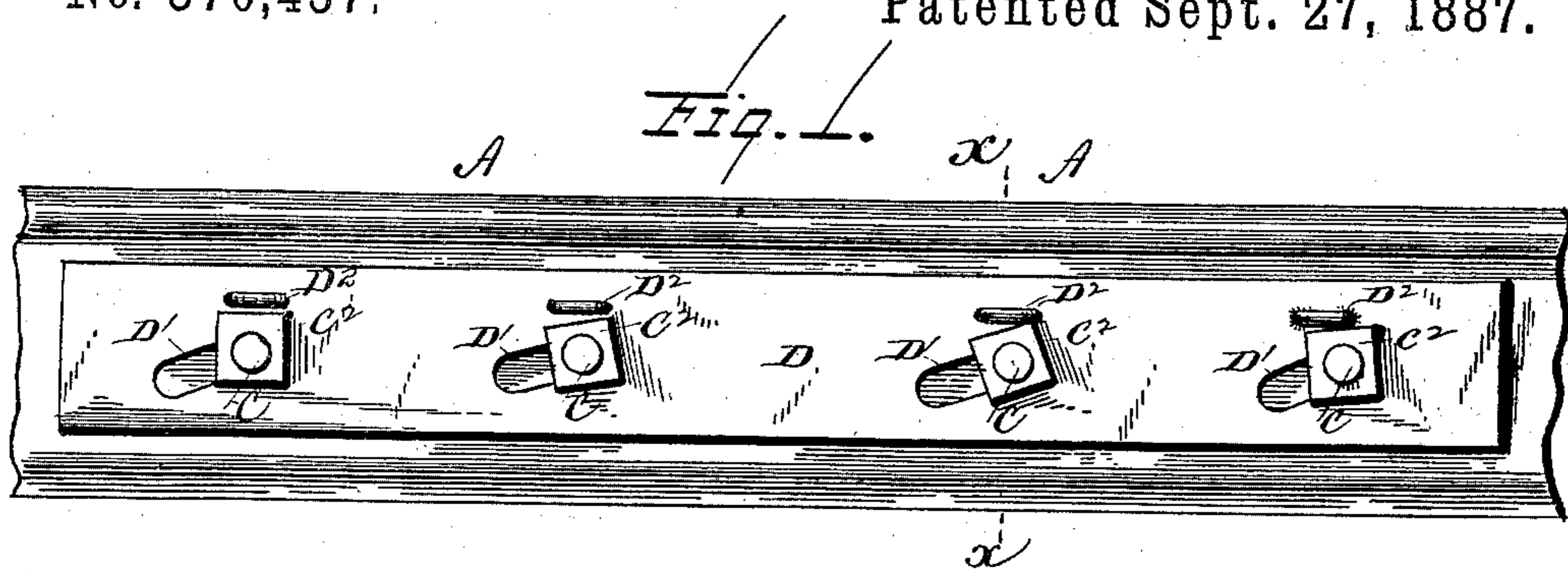
(No Model.)

J. F. DUFF.

NUT LOCK.

No. 370,457.

Patented Sept. 27, 1887.



Witnesses:
L. C. Hill,
W. D. Swall.

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN F. DUFF, OF MURPHYSBOROUGH, ILLINOIS.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 370,457, dated September 27, 1887.

Application filed February 23, 1887. Serial No. 228,590. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. DUFF, a citizen of the United States, residing at Murphysborough, in the county of Jackson, State of Illinois, 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.

This invention has relation to nut-locks, and particularly to that class thereof known as "side locks;" and the object of the invention is to provide a nut-lock adapted either to be placed against the side of the fish-plate of joints of rails, or, if desired, against the rails themselves, and which may be easily and cheaply manufactured and easily placed in position upon the rails.

With these objects in view the invention consists in certain features of construction, hereinafter specified, and particularly pointed out in the claims.

In carrying out my invention I form the lock from a plate of metal, and propose to manufacture the same by passing it between a pair of rolls provided with suitable punching and cutting devices, after which the plates may be cut into suitable lengths.

Referring to the drawings, Figure 1 is a side elevation of a railway-joint provided with my improved nut-lock. Fig. 2 is a side elevation of the nut-lock detached. Fig. 3 is a vertical section on the line X X of Fig. 1. Figs. 4 and 5 are modifications, hereinafter referred to.

A A represent ordinary T-rails, at each side of which are provided ordinary fish-plates, B, perforated to register with similar perforations in the rail, through which the bolt C is passed, which is provided with a head, C', at one end and the screw-threaded nut C² at its opposite end.

D represents a plate forming the nut-lock, which is provided with diagonal slots D', for the passage therethrough of the bolts C, upon which said plate is mounted. Above the upper end of the inclined slots D' are formed protrusions or lugs D², against which the nuts C² are wedged when the locking-joint is formed.

To place my lock upon a rail, the nuts C² are removed from the bolts, and said bolts pass through the lower ends of the inclined slots D'. The nuts C² are then tightened, and by a few blows or taps of a hammer upon the end of the plate the said plate is driven in a down-

ward course until the bolts C are brought to the upper end of said inclined slots and the nuts directly under the protrusions D², whereby said nuts are wedged against said protrusions and prevented from turning. To remove the plate, a few taps on the opposite end will force the plate in an upward direction, bringing the bolts C to the lower ends of said inclined slots and freeing the nuts from contact with the protrusions D², in which position said nuts may be turned and the plate removed for any purpose whatever. When the plate is in position upon the rails, the weight of said plates will tend to keep the plates in the upper or locked position, and accidents by reason of the loosening of said nuts is obviated.

In Figs. 4 and 5 I have shown modifications of my invention, and they consist in forming curved protrusions, lugs, or ribs upon the plate, which protrusions extend down to as near the lower edge of said plate as desired. By this means hexagonal nuts C^{2*} may be employed, in that the curvature of said protrusions approximates the contour of the nuts. A further advantage is gained by forming the protrusions in a curved line, in that the plate is greatly strengthened by reason of these transverse ribs, and less liable to be broken or twisted when being rolled and punched.

From the above description it will be seen that a strip of metal may be passed between a pair of rolls provided with suitable punches to form the protrusions or lugs D², and suitable dies or cutters to form the inclined slots D', to manufacture my nut-lock at a minimum cost and at a maximum speed. If desired, other means may be employed.

Having described my invention, what I claim is—

1. A nut-lock consisting of a strip of metal and provided with a series of inclined slots and with lugs at the upper ends of said slots, substantially as specified.

2. The combination of the rails A, the fish-plate B, and the bolts C, having the nuts C² C^{2*}, with the plate D, having the inclined slots D' and nut-retaining lugs D², arranged above their upper ends, substantially as specified.

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

JOHN F. DUFF.

Witnesses:

GEO. W. SMITH,

FRANKLIN A. ALLISON.