

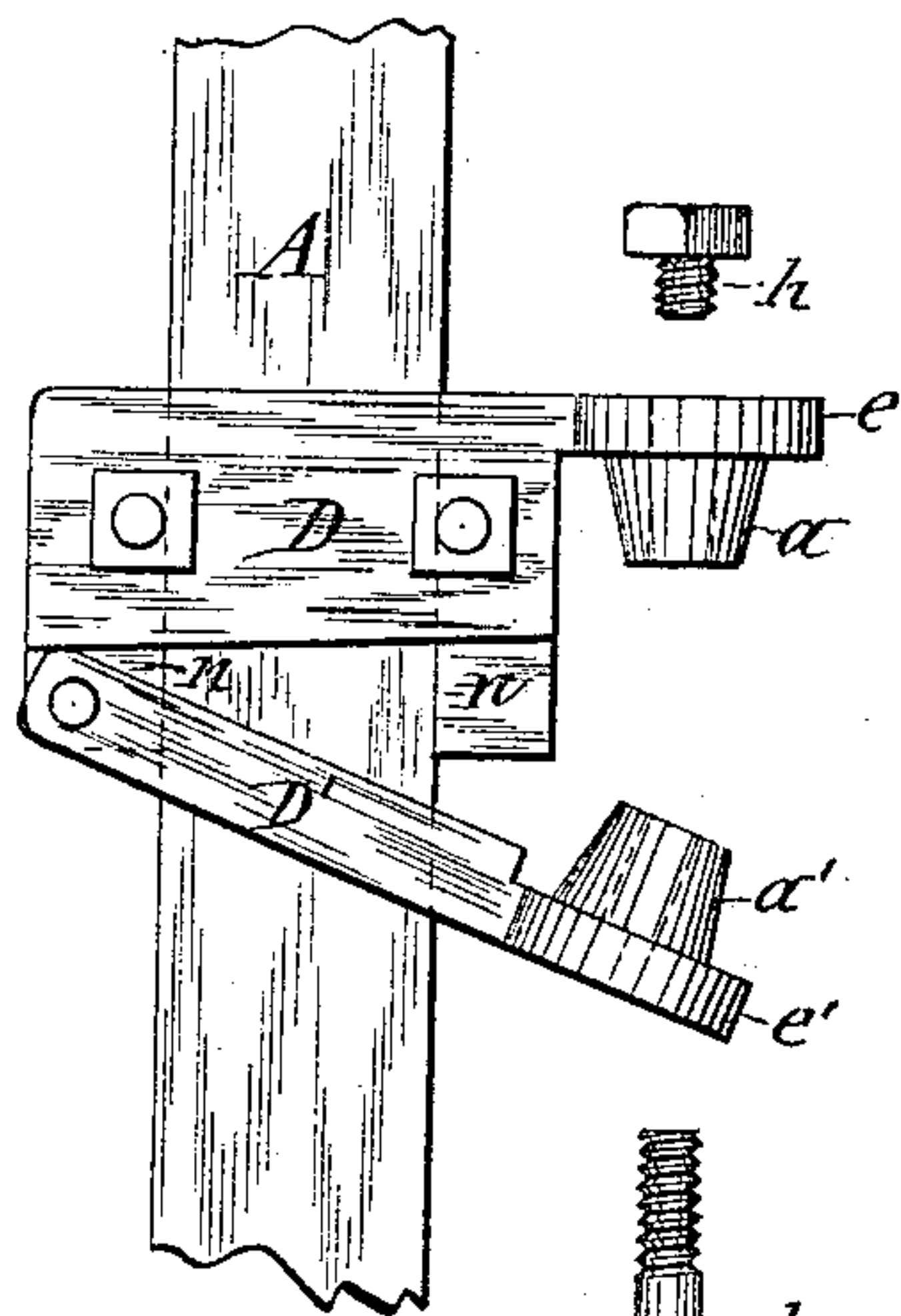
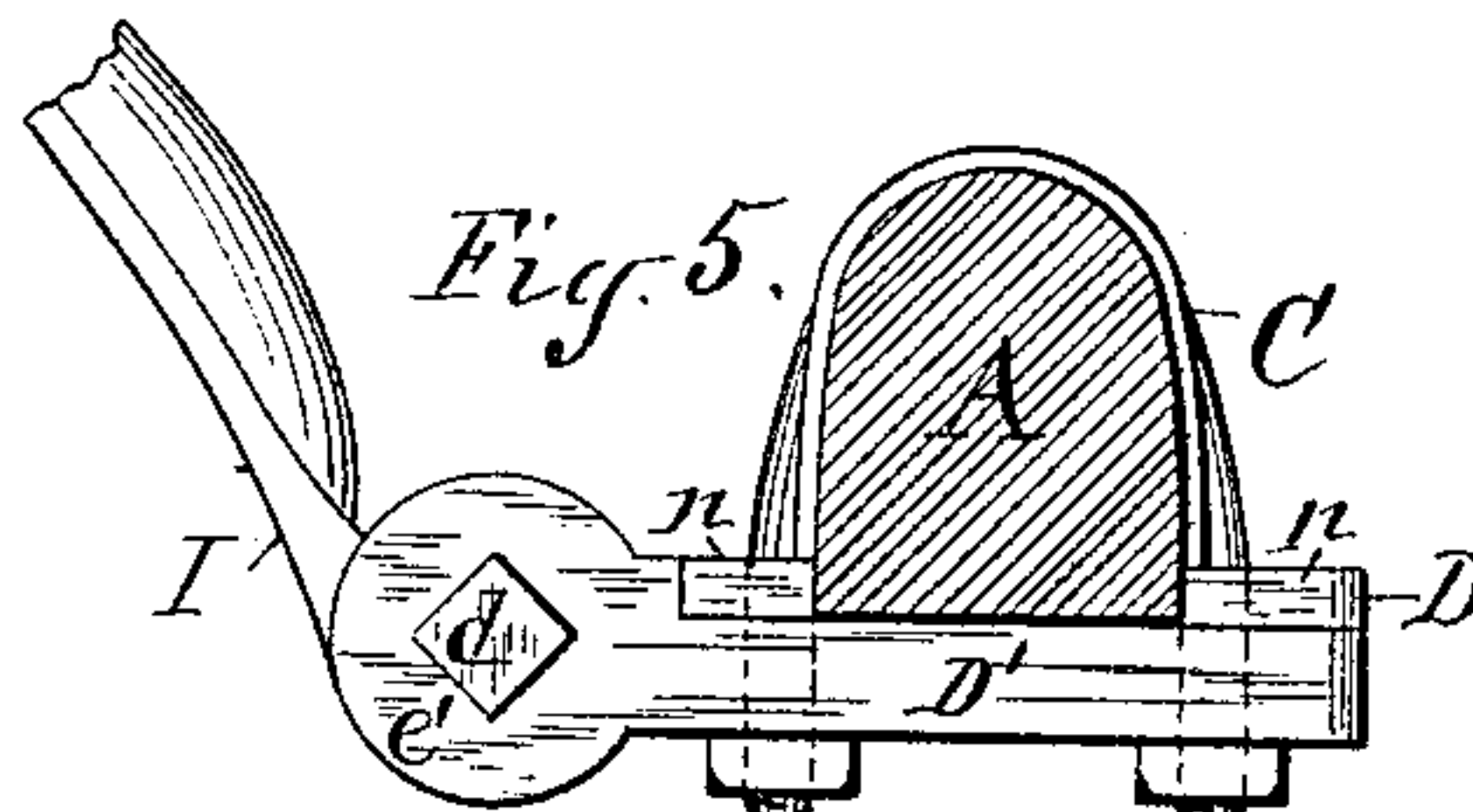
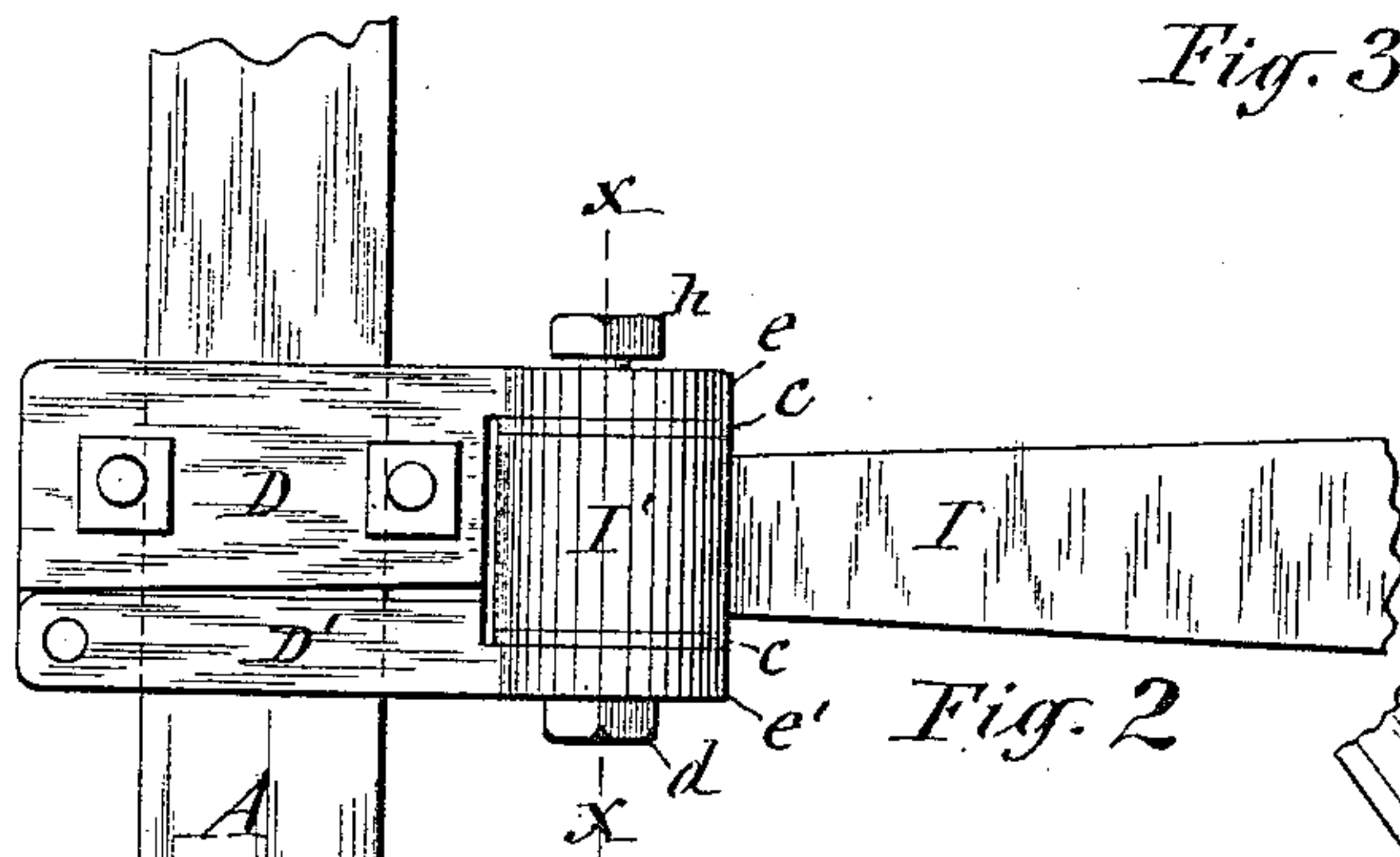
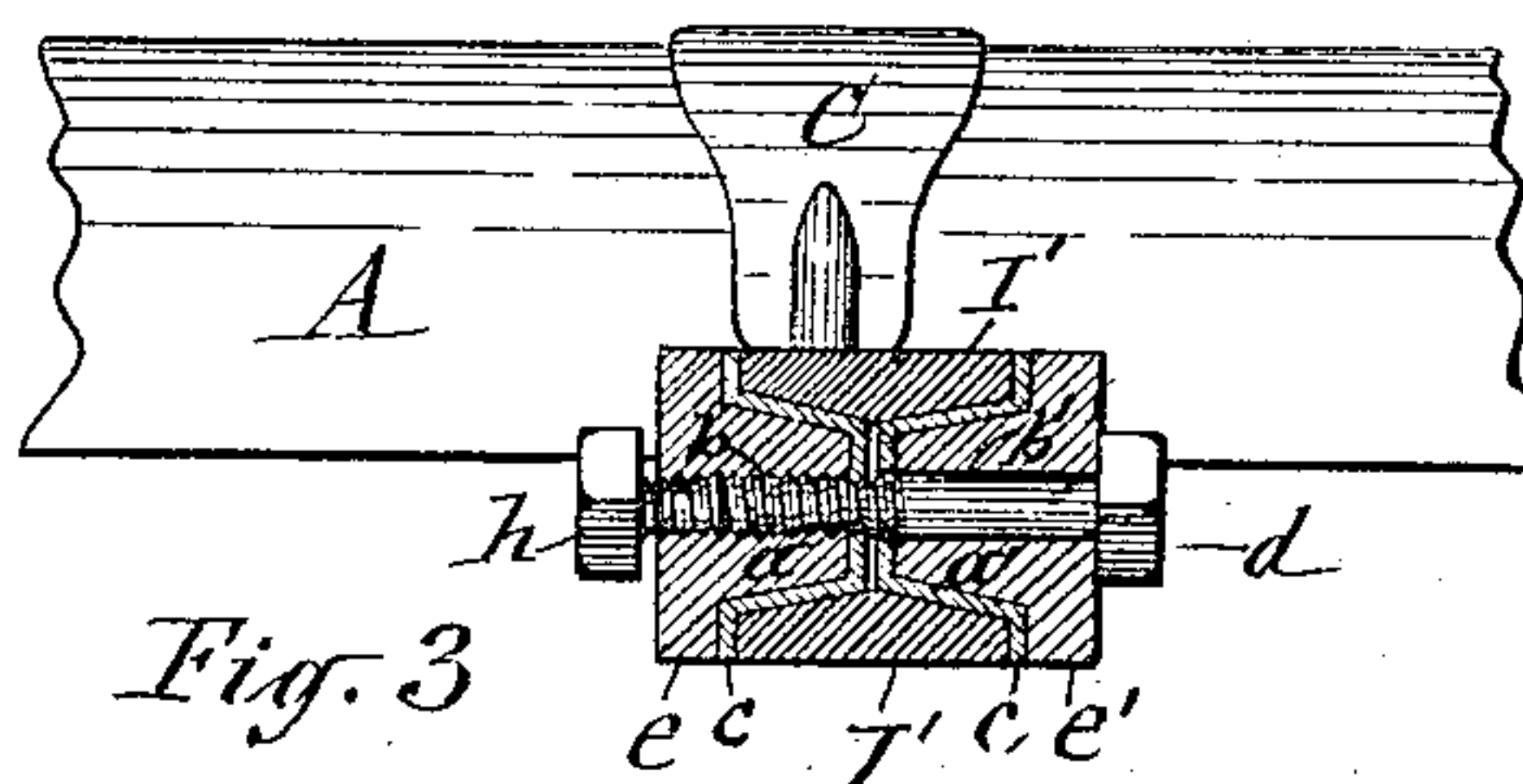
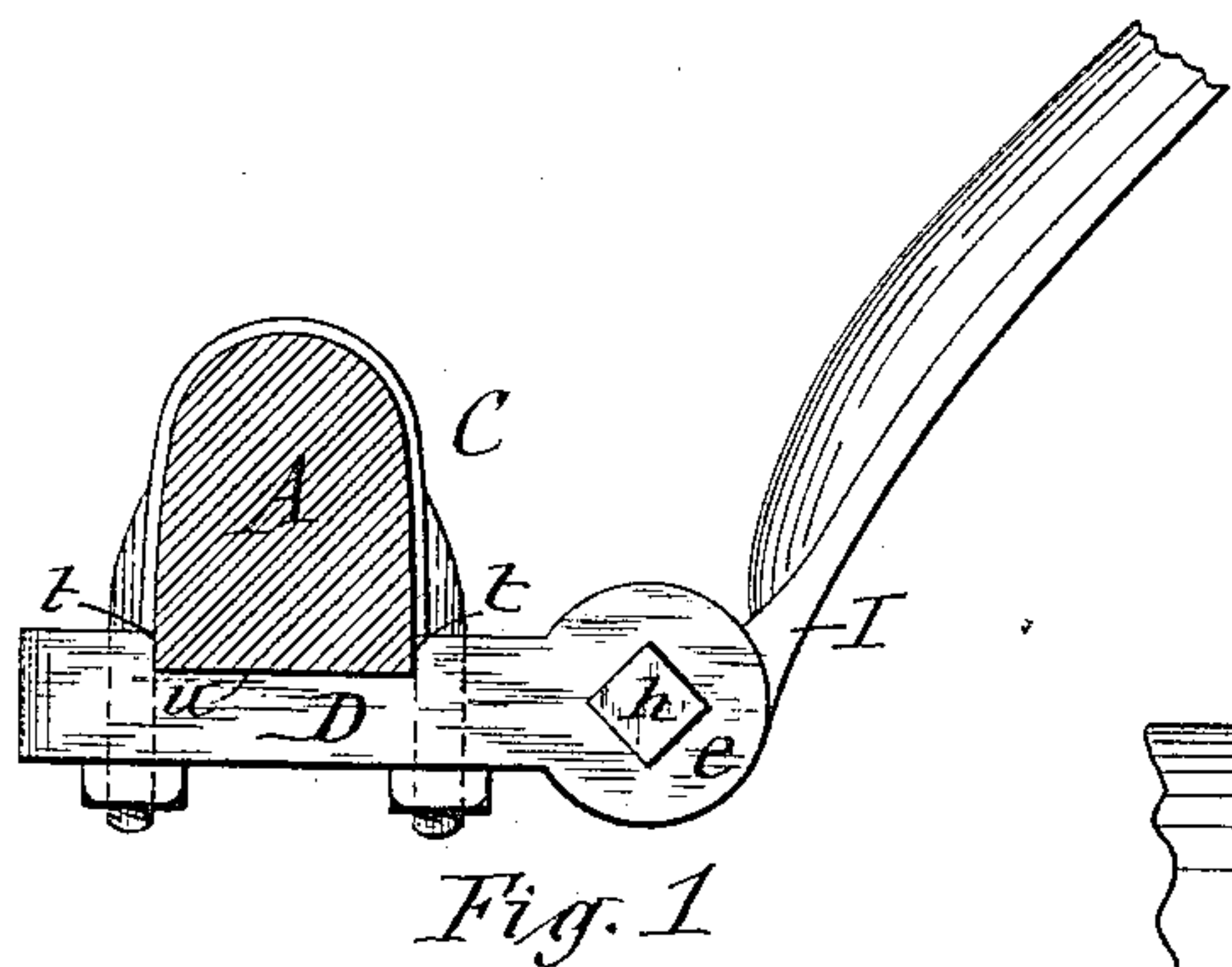
(No Model.)

W. H. LOOMIS

THILL COUPLING.

No. 362,753.

Patented May 10, 1887.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WARREN H. LOOMIS, OF FULTON, NEW YORK.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 362,753, dated May 10, 1887.

Application filed March 10, 1887. Serial No. 230,355. (No model.)

*To all whom it may concern:*

Be it known that I, WARREN H. LOOMIS, of Fulton, in the county of Oswego, in the State of New York, have invented new and useful Improvements in Thill-Couplings, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of thill-couplings in which coupling-lugs formed integral with the ears of the clip-tie enter into the eye of the thill-iron; and the invention consists in an improved construction and combination of parts, as hereinafter fully described, and set forth in the claims.

In the accompanying drawings, Figure 1 is a side view of my improved thill-coupling. Fig. 2 is an inverted plan view of the same. Fig. 3 is a vertical transverse section on line *x x*, Fig. 2. Fig. 4 is a view of all the parts detached; and Fig. 5 is a side view taken at the side of the movable jaw of the coupling.

Similar letters of reference indicate corresponding parts.

C represents the clip, which strides the axle A and is secured thereto by the clip-tie D in the usual and well-known manner. Said clip-tie is formed with lateral projections *n n* in front and rear of the axle and flush with the under side thereof, as shown in Fig. 5 of the drawings. The front of the clip-tie is formed with the ear *e*, and with the conical lug *a* on the side of said ear, which lug is provided with a screw-threaded eye, *b*. On the rear projection, *n*, is hinged a jaw, D', which is extended forward and terminates with an ear, *e'*, which has on the side facing the other ear, *e*, the conical lug *a'*, provided with a smooth-bored eye, *b'*.

I denotes the thill-iron, formed with the eye I', which has its interior shaped double conical, or flaring from the center of its length toward its ends, as shown in Fig. 3 of the drawings.

C C are conical washers composed of leather or other suitable material, which washers are introduced between the lugs *a a'* and the interior of the eye I' of the thill-iron, as shown in Fig. 3 of the drawings.

*d* denotes the coupling-bolt, which is inserted into the smooth eye of the lug *a'*, and has its inner end screw-threaded and engaging the screw-threaded eye *b* of the lug *a*, and serves to draw the lugs *a a'* tightly into the eye I', so as to effectually prevent the latter from rat-

ting. Into the screw-threaded eye *b* of the lug *a*, from the outer face of the ear *e*, is introduced a set-screw, *h*, which is to be screwed into said eye so as to cause the inner end of said set-screw to bear firmly on the inner end of the coupling-bolt *d*, and thereby prevent the latter from working loose, thus rendering the coupling very secure.

The clip-tie D is boxed on its upper side to form a recessed seat, *u*, with bearings *t t* against the front and rear of the axle, said clip-tie being thus provided with a firm hold on the axle. The lateral projections *n n* serve to support the hinged jaw D' against upward strain.

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

1. In a thill-coupling, the thill-iron provided with a conical eye, in combination with conical coupling-lugs connected to the axle-clip and adapted to enter into the eye of the thill-iron, one of said lugs having a smooth eye and the other lug a screw-threaded eye, the coupling-bolt inserted in the smooth eye and engaging the screw-threaded eye, and a set-screw inserted in the latter eye and bearing on the inner end of the coupling-bolt, substantially as set forth.

2. In combination with the clip C, the clip-tie D, formed with the lateral projections *n n* in front and rear of the axle and flush with the under side thereof, and formed also with the ear *e* and the conical lug *a* on said ear, said lug being provided with the screw-threaded eye *b*, the jaw D', hinged on the clip-tie and formed with the ear *e'*, and the conical lug *a'*, having a smooth eye, *b'*, the thill-iron I, having the double conical-shaped eye I', the conical washers *c c*, the coupling-bolt *d*, inserted through the lug *a'* and engaging the eye of the lug *a*, and the set-screw *h*, inserted in the latter eye and bearing on the inner end of the coupling-bolt, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Fulton, in the county of Oswego, in the State of New York, this 7th day of March, 1887.

WARREN H. LOOMIS. [L. s.]

Witnesses:

GILES S. PIPER,

CHARLES W. YOUNG.