

(Model.)

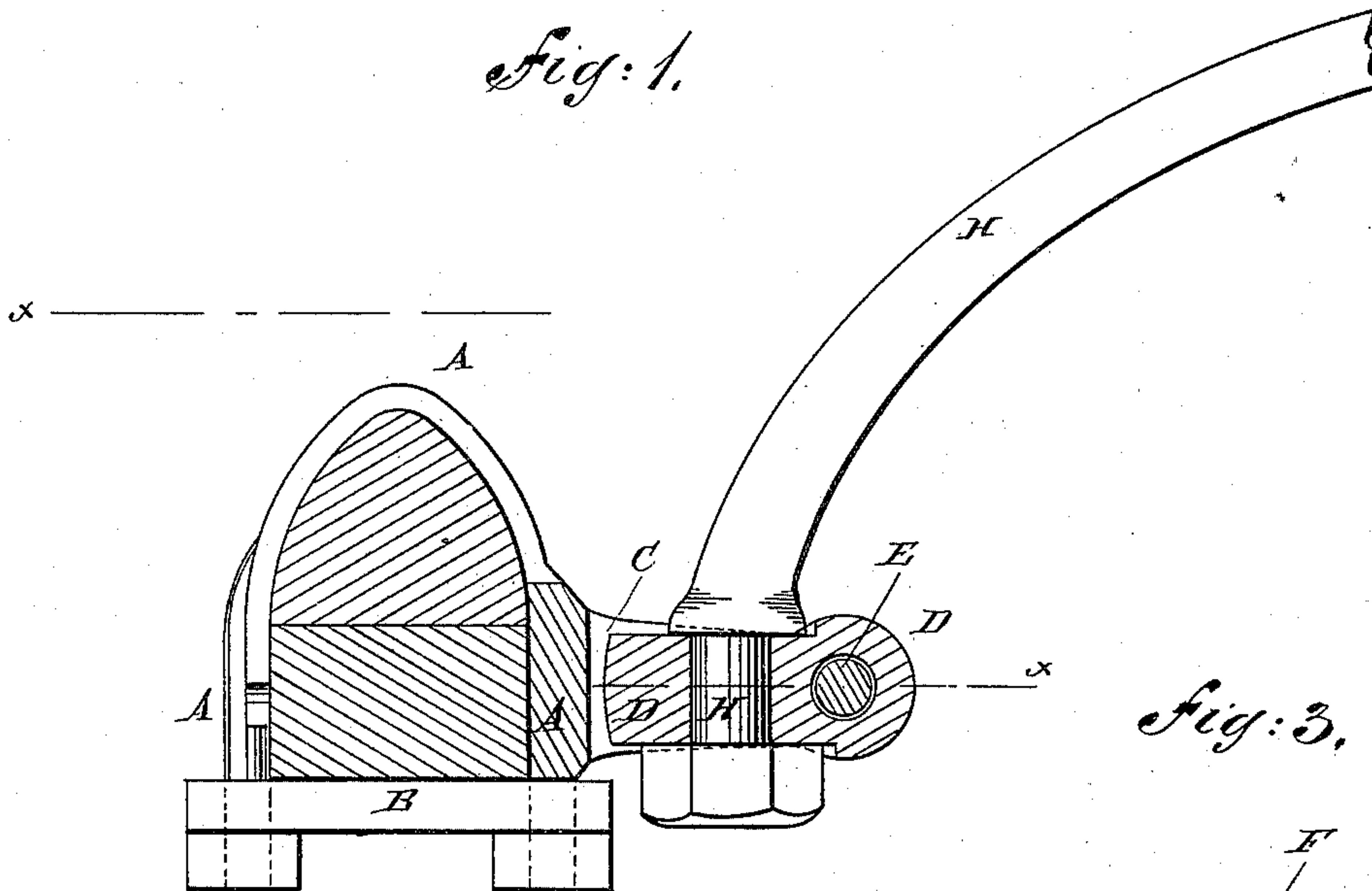
C. M. SLACK & F. CRAWFORD.

THILL COUPLING.

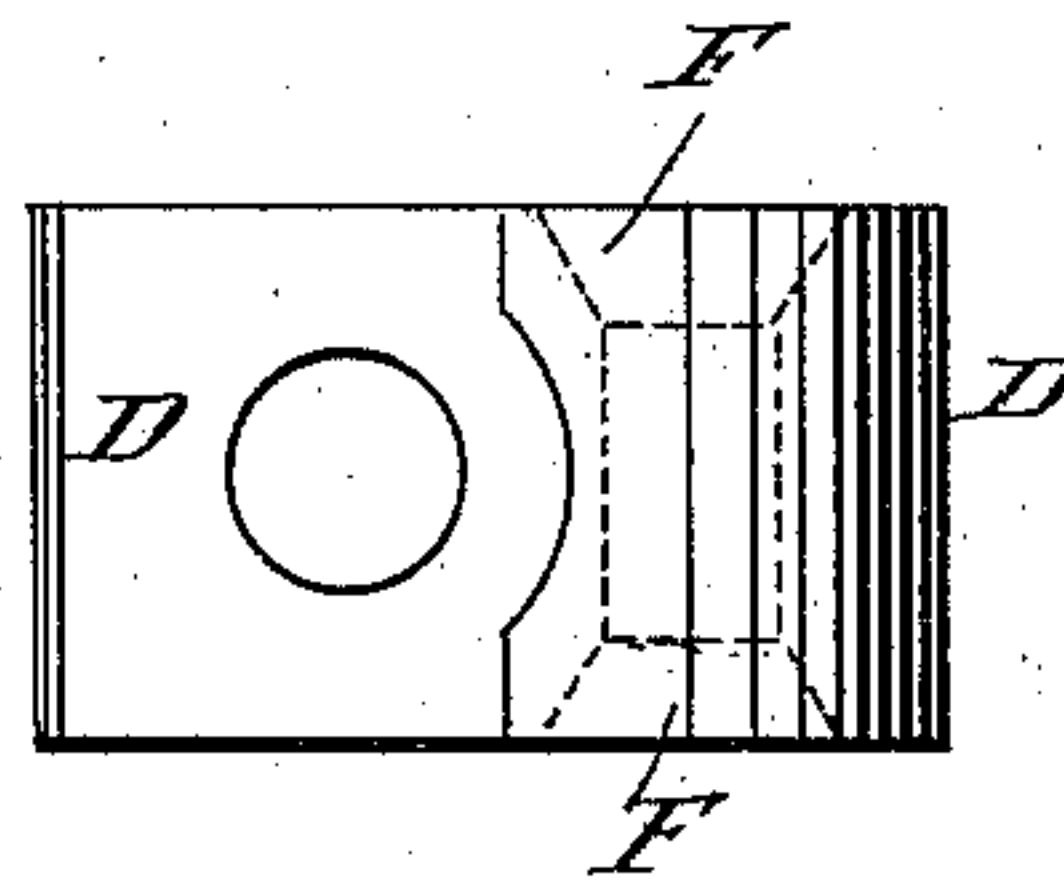
No. 344,549.

Patented June 29, 1886.

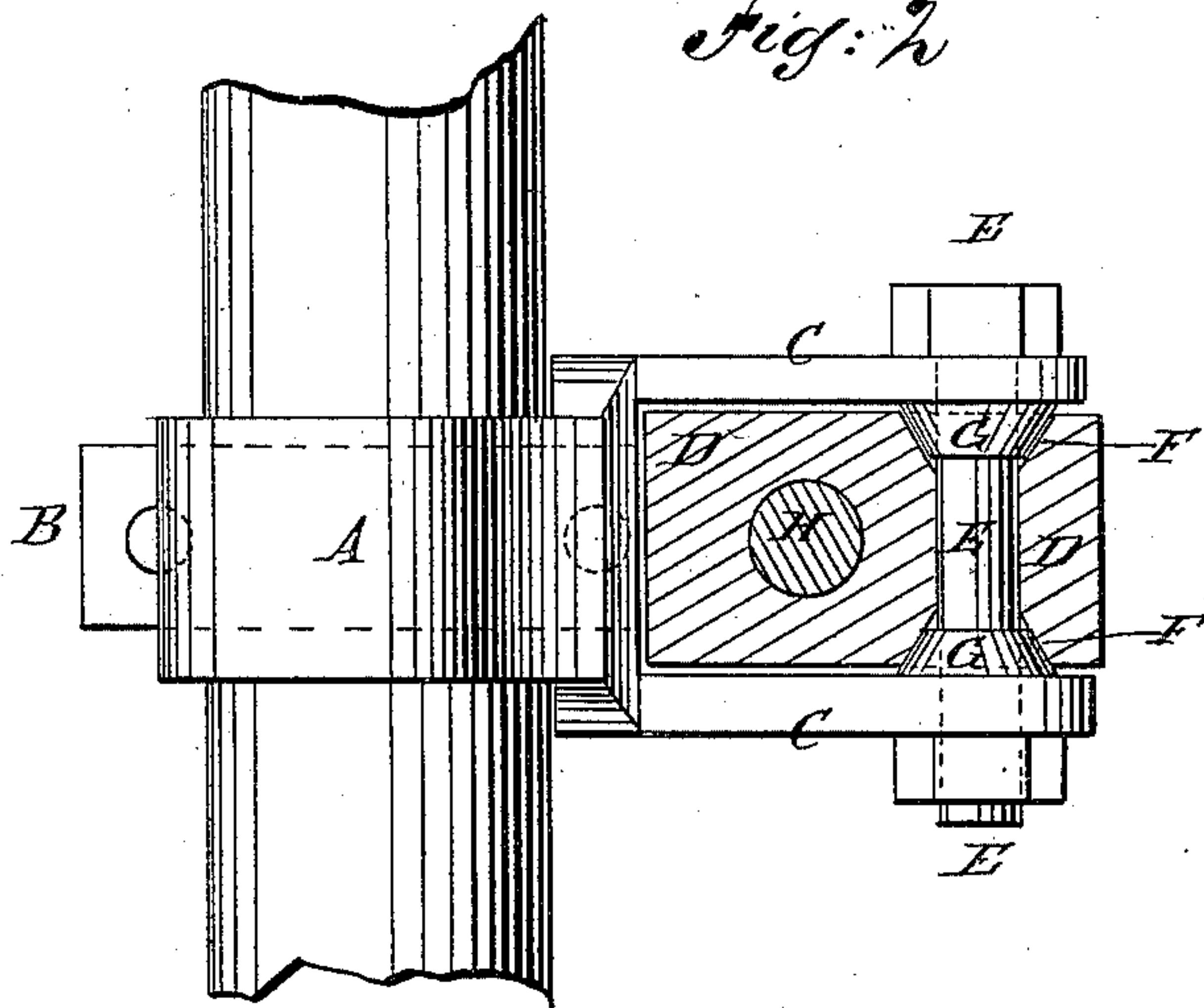
*Fig: 1.*



*Fig: 3.*



*Fig: 2.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CLARENCE M. SLACK AND FRANK CRAWFORD, OF NEW BRUNSWICK,  
NEW JERSEY.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 344,549, dated June 29, 1886.

Application filed February 18, 1886. Serial No. 192,352. (Model.)

*To all whom it may concern:*

Be it known that we, CLARENCE M. SLACK and FRANK CRAWFORD, both of New Brunswick, in the county of Middlesex, State of New Jersey, have invented a new and useful Improvement in Thill-Couplings, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of our improvement, the axle-clip being shown in side elevation and the axle in section. Fig. 2 is a sectional plan view of the same, taken through the line *xx*, Fig. 1, the axle-clip and part of the axle being shown in plan view. Fig. 3 is a plan view of the coupling-block.

The object of this invention is to provide thill-couplings constructed in such a manner that rattling will be prevented by taking up the wear, and that the wear can be readily taken up.

The invention consists in the construction and combination of the various parts of the coupling, as will be hereinafter fully described.

A represents the bow, and B the yoke, of an axle-clip. Upon the forward arm of the bow A are formed two parallel arms, C, between which is fitted the coupling-block D. The block D is secured in place by a bolt, E, which passes through a hole in the forward ends of the arms C and block D, and has a nut screwed upon its end. In the opposite sides of the forward end of the coupling-block D, at the ends of the hole for the bolt E, are formed conical countersinks F, to receive conical projections G, formed upon the inner sides of the arms C, and through which the

hole for the bolt E passes. With this construction the wear will come mostly upon the conical countersinks F and the conical projections G, and when this wear has progressed to such an extent that the coupling-block D becomes loose and liable to rattle the said wear can be taken up by tightening the nut of the bolt E, so as to draw the outer ends of the arms C toward each other.

If desired, the conical countersinks F can be formed in the inner sides of the forward ends of the arms C and the projections G formed upon the opposite side edges of the coupling-block D, the effect being the same in both cases.

The coupling-block D is perforated vertically to receive the end of the thill-iron H, which is secured in place by a nut screwed upon it. The thill-iron H can be otherwise secured to the coupling-block D, if desired.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

The combination, with the axle-clip A B, provided with the parallel arms having conical projections G G, and bolt-holes passing through said arms and projections, of the coupling-block D, having a transverse bolt-hole, conical countersinks at the ends of said bolt-hole to receive the projections G G, and a vertical bolt-hole, and the thill-iron having its screw-threaded end passed through the vertical hole in the block and secured by a nut, substantially as set forth.

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Witnesses:

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