

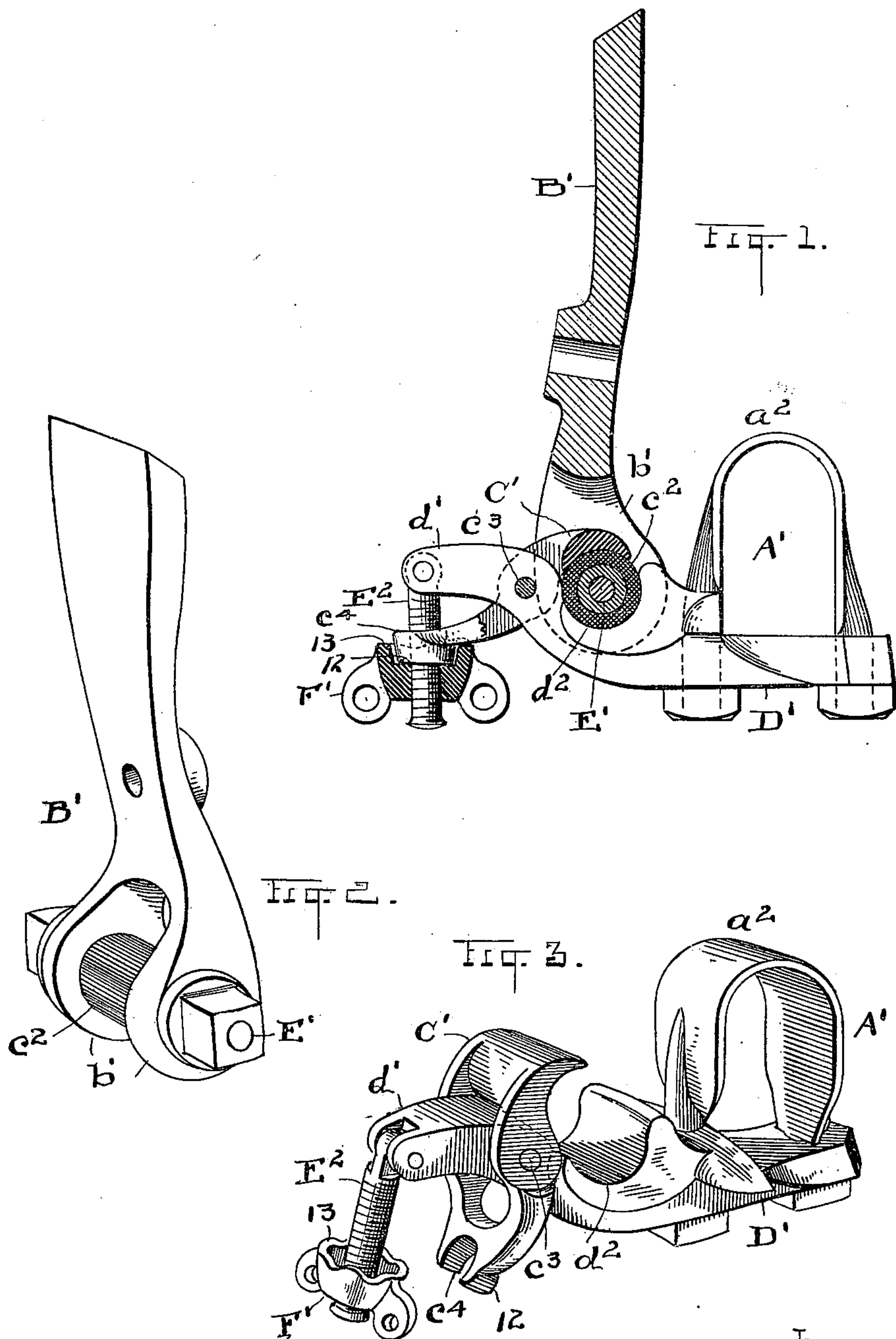
No. 659,262.

Patented Oct. 9, 1900.

W. C. SHIPHERD.  
THILL COUPLING.

(Application filed Feb. 24, 1900.)

(No Model.)



ATTEST.

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# UNITED STATES PATENT OFFICE

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## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 659,262, dated October 9, 1900.

Application filed February 24, 1900. Serial No. 6,351. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. SHIPHERD, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Thill-Couplings; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to thill-couplings; and the invention consists in a thill-coupling constructed to make convenient the engagement and disengagement of the thills and to avoid possible rattling, all substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side sectional elevation of my improved coupling with the parts in working position. Fig. 2 is a perspective view of the thill-iron alone. Fig. 3 is a perspective view of the axle-clip alone and its novel attachments in disengaged relations, as hereinafter fully described.

In the views I show an axle-clip A', a thill-iron B', and a jaw C', pivoted on a forwardly-extending arm d' integral with the bottom piece D' of the clip A'. The thill-iron or "eyepiece" B', as it is sometimes called, is bifurcated or divided to form arms b', which come down at the opposite sides of the clip-arm d' just in front of the clip-loop a<sup>2</sup>, and at the base of said arm d', where the metal is heavy, I form a broad concave bearing or seat d<sup>2</sup>, which affords a rest for the thill. In this instance also the coupling-pin or cross-bolt E' is secured permanently in the bifurcations b' of the thill-iron, and upon or around it is a bushing or sleeve c<sup>2</sup> of yielding material, preferably rubber, and which helps to make a close working connection and to prevent rattling. A pivot-pin c<sup>3</sup> forms the immediate support for jaw C' on arm d' of the clip, and the said jaw has a central opening through which it is slipped over the arm to its pivot-point thereon, when the pin c<sup>3</sup> is inserted. The jaw portion proper is rounded to engage over the sleeve c<sup>2</sup> on the coupling-rod E' in the thill-iron, as seen in Fig. 1, and serves to hold the thill down in working position, while the op-

posite end of said jaw has an open semicircular cavity c<sup>4</sup> to work in conjunction with the fastening-screw E<sup>2</sup>, and a segmental flange 12 about said cavity on its under side serves to enter the cavity in nut F' on said rod and make a locking engagement. In this instance also the said nut has an undulating or scalloped edge 13 to lock on the jaw C' next behind the flange 12, so that no jarring or other ordinary cause can dislodge said nut when it has been tightened up for use.

The tightening-screw E<sup>2</sup> is pivoted directly in the outer end of arm d' in such manner that it can be swung on a radius under the end of jaw C' or clear around to the top of arm d' toward the top of the jaw, and its head is slightly upset to prevent possible losing off of the nut. It will be also noticed that in this construction the strain of the draft or pull comes chiefly upon the strong arm d' by reason of the depth of the seat d<sup>2</sup> therein, because the said arm is shouldered or rounded up at such elevation at the front of its seat, as seen in Fig. 1, and the jaw serves more especially as a confining member for the thill-iron.

The coupling-bolt or cross-pin E' is permanently secured in the shaft-iron and hence removed with the shaft, and it may be of any preferred form.

When the term "thill-iron" occurs herein, it should be considered and construed as including pole-irons as well, because the iron is used both with shafts or thills and poles or tongues indiscriminately, and so far as this description and the claims are concerned it is immaterial whether one or the other is meant.

When the jaw C' is liberated from screw E<sup>2</sup> and nut F', it swings of its own gravity to the open position shown in Fig. 3, and this throws the coupling open to either remove or to replace the thill or pole without any obstruction whatsoever, and it is the work of only a few seconds to release or tighten the screw and nut.

What I claim is—

1. In thill-couplings, a clip having a forwardly-projecting arm with a seat on its top for the thill or pole iron, and a locking-jaw pivoted between its ends on said arm in front of said seat and extending below the same at



its free end, and a screw pivoted on said arm engaging the said free end of the jaw to press it into engagement, substantially as described.

2. The clip and its arm having a seat for  
5 the thill or pole iron, a locking-jaw pivoted between its ends on said arm in front of said seat, and having its upper end adapted to swing over said seat to engage on the thill or pole iron extending forward below said arm,  
10 a screw pivoted on the extremity of said arm and a nut thereon to engage beneath the front end of the locking-jaw, substantially as described.

3. The clip having a forwardly-projecting

arm, a jaw overlapping said arm at both sides  
15 and pivoted substantially at its middle thereon and having a recess in its lower end, a screw pivoted on the extremity of said arm and adapted to swing into said recess, and a  
20 nut on said screw to engage against the under side of said recessed portion of the jaw, substantially as described.

Witness my hand to the foregoing specification this 27th day of January, 1900.

WILLIAM C. SHIPHERD.

Witnesses:

H. E. MUDRA,

R. B. MOSER.