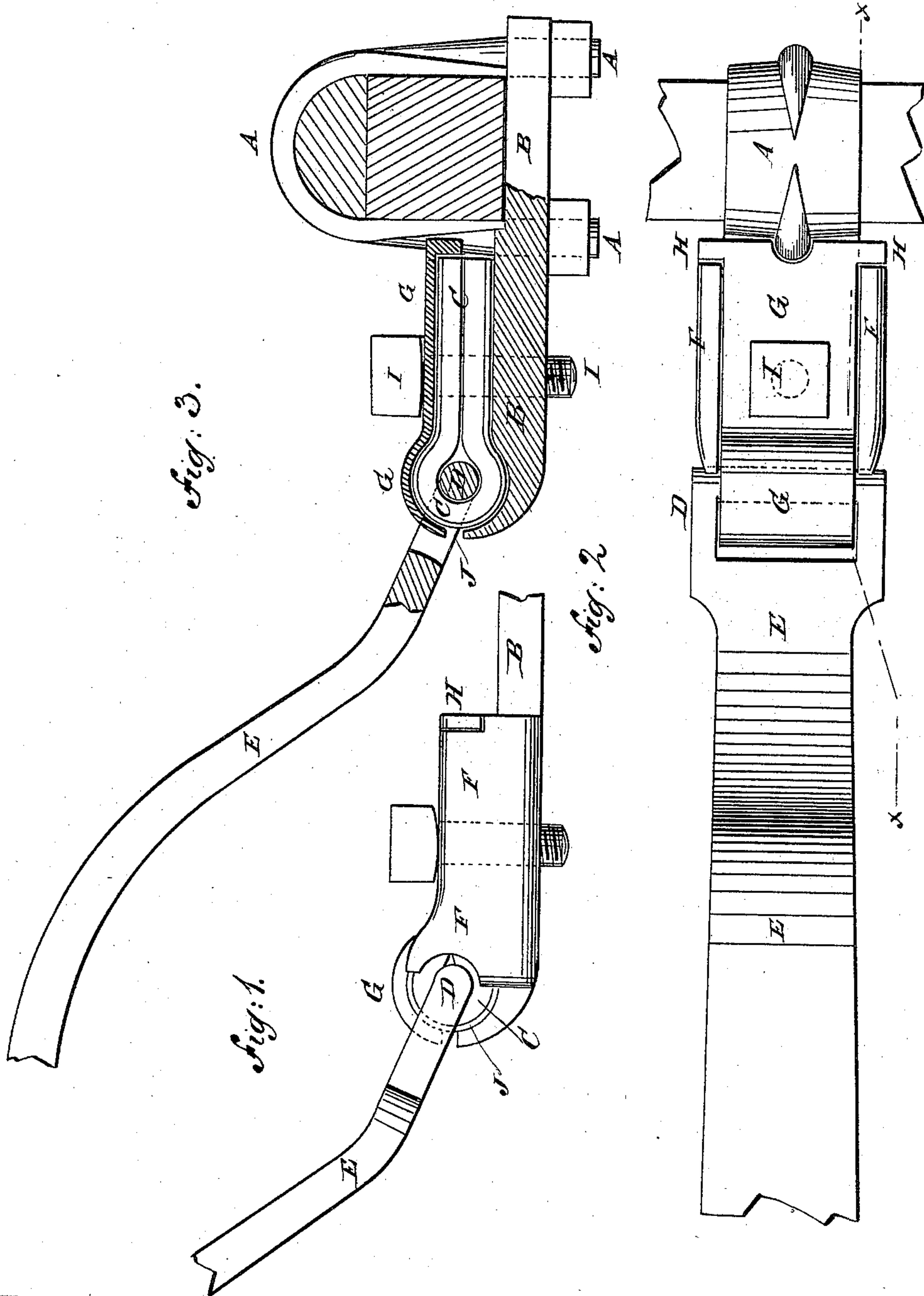


(No Model.)

H. W. KING.
THILL COUPLING.

No. 309,469.

Patented Dec. 16, 1884.



WITNESSES:

Chas. Nida
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INVENTOR:

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UNITED STATES PATENT OFFICE.

HENRY W. KING, OF CANAAN, ASSIGNOR TO HIMSELF, AND THOMAS S. SMITH, OF CANAAN FOUR CORNERS, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 309,469, dated December 16, 1884.

Application filed May 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. KING, of Canaan, in the county of Columbia and State of New York, 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 side elevation of my improvement. Fig. 2 is a plan view of the same. Fig. 3 is a sectional side elevation of the same, taken through the line *x x*, Fig. 2.

The object of this invention is to prevent noise and promote security and convenience in the use of thill-couplings.

The invention consists in a thill-coupling constructed with a U shaped leather strap passed through the eye of the thill-iron, and secured to the projecting end of the clip-yoke by a cap-plate and a bolt. The leather strap is secured against lateral movement between the projecting end of the clip-yoke and the cap-plate by flanges formed upon the side edges of one of the said parts. A U-shaped spring is placed upon the bend of the leather strap, between the projecting end of the clip-yoke and the cap-plate, to start the said cap-plate from its seat when the fastening-bolt is removed, as will be hereinafter fully described.

A represents the bow, and B the yoke, of an axle-clip. The yoke B is extended forward, and is recessed upon the upper side of its forward end to receive the bend of the leather strap C and the eye D of the thill-iron E.

Upon the side edges of the forward part of the yoke B are formed upwardly-projecting flanges F, to cover the edges of the leather strap C and cap-plate G, and hold the said strap and cap-plate from lateral movement. The cap-plate G is concaved upon the lower side of its forward end, to receive the bend of the leather strap C and the eye D of the thill-iron E, and has a slight swell upon its upper side, to prevent the body of the said cap-plate from being made too heavy.

Upon the rear corners of the cap-plate G are formed laterally-projecting lugs H, which rest against the rear ends of the flanges F and assist in sustaining the draft-strain.

If desired, the side flanges, F, can be formed upon the side edges of the cap-plate G, and overlap the side edges of the projecting part of the yoke B and produce practically the same effect.

The cap-plate G and the leather strap C are secured in place by the bolt I, which passes through holes in the said cap-plate and leather strap, and is screwed into a screw-hole in the projecting part of the yoke B.

J is a U-shaped steel spring placed upon the bend of the leather strap, with its ends confined between the cap-plate G and the projecting end of the yoke B, so that when the screw-bolt I is loosened the said spring will start the said cap-plate from its seat, and thus facilitate its removal.

If desired, the arms of the spring J can be extended to the ends of the leather strap C, as shown in Fig. 3, and perforated for the passage of the screw-bolt I, to give an increased strength to the coupling.

The strap C can be made of leather, raw-hide, rubber, or other suitable flexible material.

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

1. A thill-coupling constructed substantially as herein shown and described, and consisting of a U-shaped flexible strap passed through the eye of the thill-iron, and secured to the projecting end of the clip-yoke by a cap-plate and bolt, as set forth.

2. In a thill-coupling, the combination, with the projecting end of the clip-yoke B and the eye of the thill-iron, of the U-shaped leather strap C, the flanges F, the cap-plate G, and the bolt I, substantially as herein shown and described, whereby the thill-iron will be held securely in place, as set forth.

3. In a thill-coupling, the combination, with the projecting end of the clip-yoke B, the leather strap C, the thill-iron E, the cap-plate G, and the bolt I, of the U-shaped spring J, substantially as herein shown and described, whereby the said cap-plate will be started from its seat when the bolt is removed, as set forth.

HENRY W. KING.

Witnesses:

THOMAS S. SMITH,
FRANCIS L. BEALE.