

I. N. ELLIS.

Improvement in Thill Coupling.

No. 125,553.

Patented April 9, 1872.

Fig. 1.

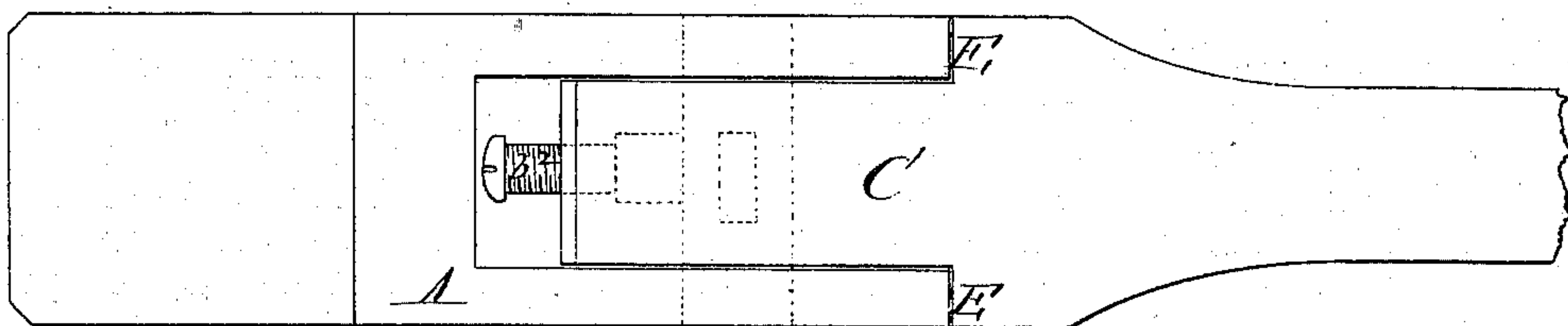
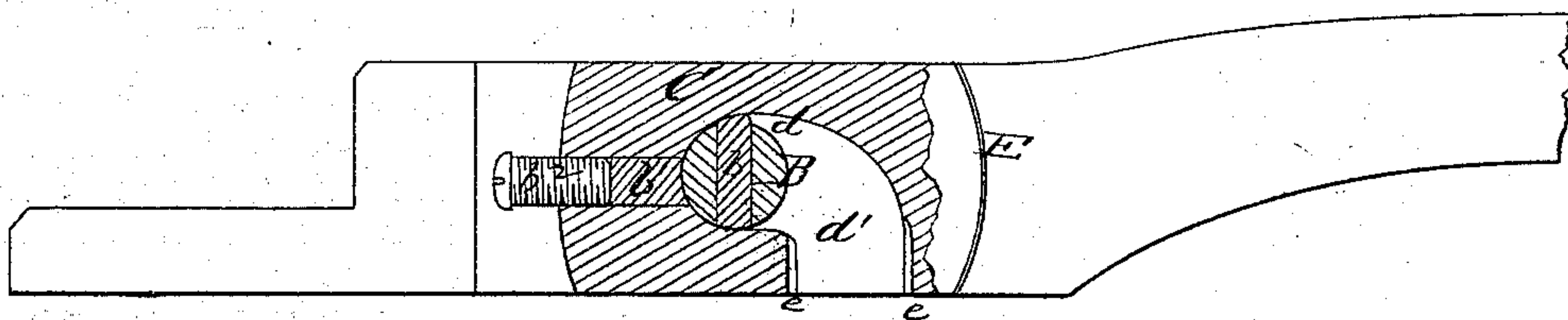


Fig. 2.



WITNESSES.

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IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. 125,553, dated April 9, 1872.

To all whom it may concern:

Be it known that ISAAC N. ELLIS, of Thorn-town, in the county of Boone and State of Indiana, has invented a new and valuable Improvement in Thill-Coupling; and he does hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a top view of my invention. Fig. 2 is a vertical section of the same.

This invention has relation to thill-coupling; and consists, first, in the improved construction of the thill-iron, and the method of coupling it to the clip. Second, in the novel arrangement of rubber cushions, all as herein-after described.

Referring to the drawing, A represents the clip-shackle; B, the shackle-pin, rigidly secured to the shackle, slotted vertically, and holding a rubber block, *b*, which projects slightly from the ends of the slot, and serves as a cushion to prevent rattling from the vertical movement of the parts coupled. C designates the thill-iron, constructed with a socket, *d*, to hold the shackle-pin B. This socket is entered by a curved slot, *d'*, terminating at the lower side of the thill-iron, the socket being in the rear of or constituting the back part of said slot. The thill-iron is constructed with a pair of curved shoulders at E, corresponding with the rounded ends of the shackle-arms, which are cut to the arc of a circle struck from the center of the shackle-pin. The ordinary movement of the thill is not sufficient to displace or uncouple the thill-iron, the mouth of the slot being of the same diameter as the shackle-pin.

The thill is coupled and uncoupled by placing it at right angles to the arms of the shackle,

then pushing it back or drawing it forward, as required. In coupling, the thill-iron is pushed back so as to let the slot pass over the shackle-pin, after which it is let fall so as to bring the pin into the socket. The slot at its open end being of the same diameter as the pin, has notches *e* cut so that the projecting ends of the cushion-block *b* may pass freely, thereby enabling the coupling or uncoupling to be freely accomplished. At the rear end of the thill-iron an aperture is formed, and in it placed a rubber cushion, *b'*, which projects into the socket in the thill, so as to cushion the shackle-pin and prevent rattling by the longitudinal play of the coupled parts. This cushion is made adjustable to compensate for wear. A screw, *b''*, is used as a means of adjustment. Any equivalent device may be used for the same purpose.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with the forked clip A, having circular ends, and rigid transverse pin B, of the thill-iron C, having the lateral concave circular shoulders E and the angular slot *d'*, extending upward and rearward, substantially as specified.

2. The stationary shackle-pin B, provided with the vertical rubber cushion-block *b*, in combination with the slot *d'*, having the notches *e*, and terminating in the socket *d*, as and for the purpose set forth.

3. The adjustable cushion *b'*, placed in the end of the thill-iron C, having the socket *d*, in combination with the stationary shackle-pin B, holding the vertical cushion *b*, all substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: ISAAC N. ELLIS.
R. A. WILLIAMSON,
JOHN A. TAYLOR.