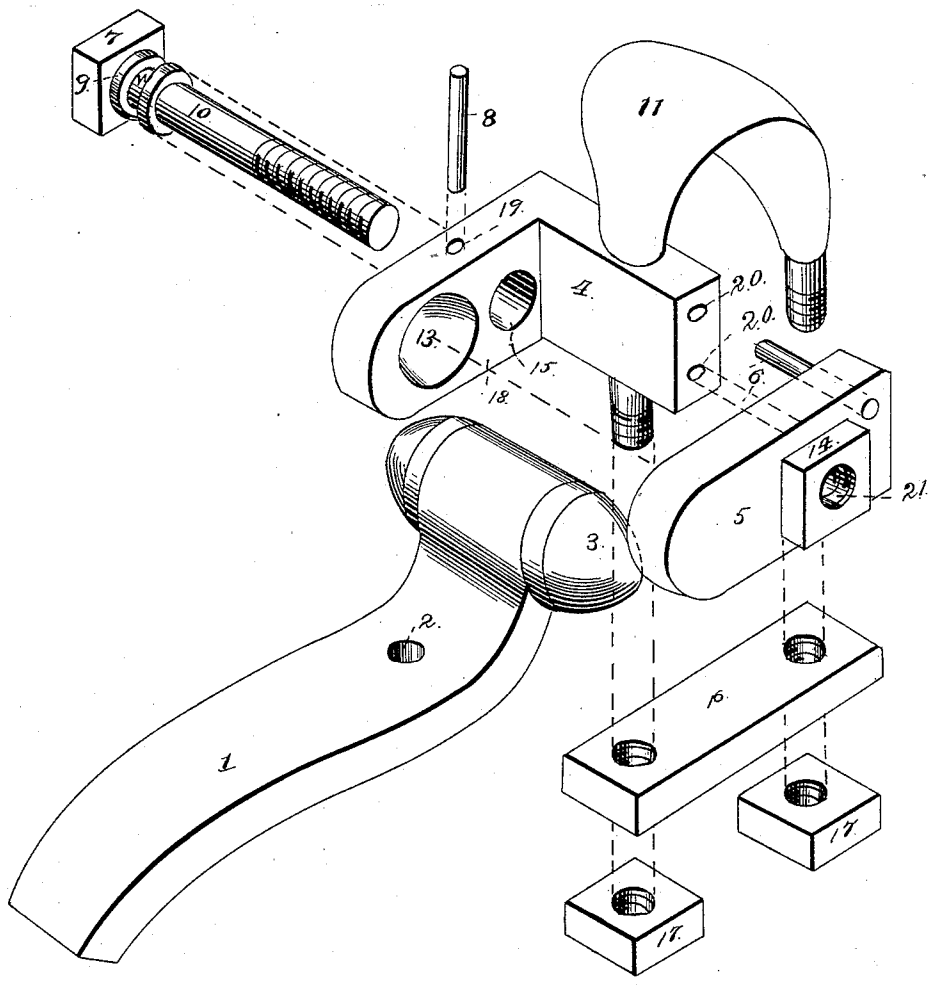
(No Model.) 2 Sheets—Sheet 1.

S. CRAIG.

THILL COUPLING.

No. 299,912. Patented June 3, 1884.

Fig. 1.



WITNESSES
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

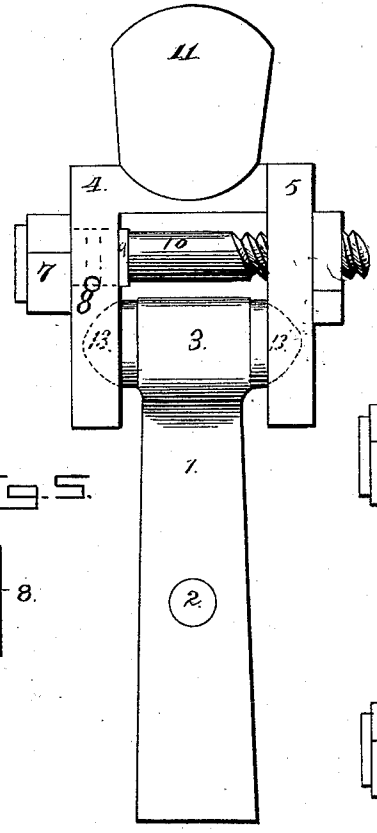


Fig. 3.

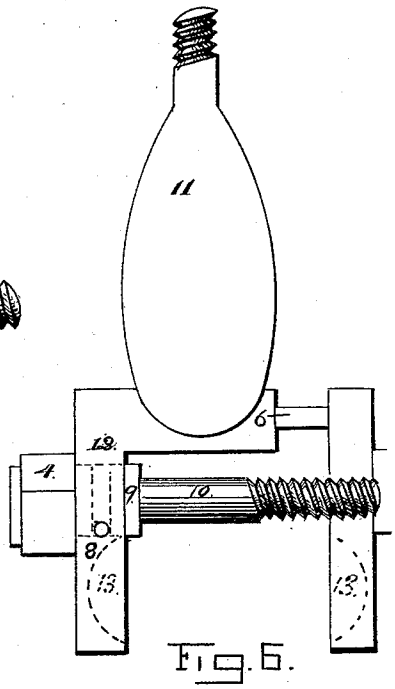


Fig. 4

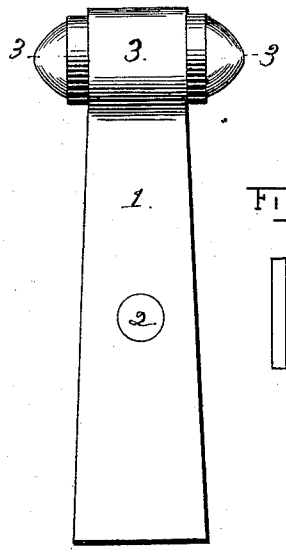


Fig. 5.

Fig. 6.

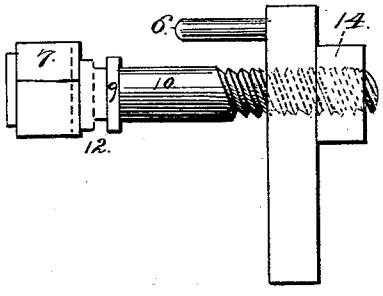
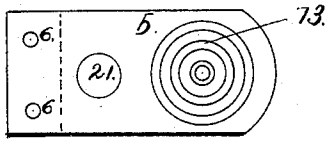


Fig. 7.



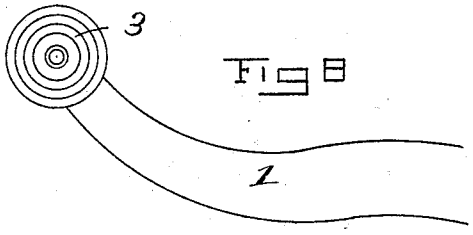


Fig 8

WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL CRAIG, OF HOLMESBURG, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 299,912, dated June 3, 1884.

Application filed October 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL CRAIG, a citizen of the United States, residing at Holmesburg, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Anti-Rattler-Shaft Shackle, of which the following is a specification.

This invention relates to thill-couplings; and it consists in the novel construction, combination, and arrangement of the several parts, as will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is a perspective view of the parts of my coupling detached. Fig. 2 is a plan view of the coupling. Fig. 3 is a plan view of the clip, jaws, and adjusting devices. Figs. 4, 5, 6, 7, and 8 are detail views, all of which will be hereinafter more fully described and claimed.

The clip 11 is formed with suitable arms adapted to embrace the axle and operate in connection with plate 16 and nuts 17, to secure the device thereto. The clip is provided or formed on its front side with the plate or block 4, from one end of which the fixed jaw 18 extends forward, as shown, at right angles to the plate. This jaw 18 is provided, near its forward end, with a concave socket or recess, 13, formed in its inner face, and is provided near its rear end with a transverse hole, 15. A pin-opening, 19, is formed vertically through the fixed jaw, and intersects the opening 15 at one side of same, as most clearly indicated in Figs. 2 and 3.

In the end of plate 4, opposite the jaw 18, I form two or more longitudinal pin-openings, 20, arranged one above the other, as shown in Fig. 1. The object of such arrangement is to prevent the movable jaw, presently described, from turning on its connection with the plate 4, and to preserve said movable or adjustable jaw in its true parallel position with the jaw 18. The movable jaw 5 is formed with a concave socket, 13, in its inner face similar to and opposite that in the fixed jaw, and it has an opening, 21, formed through it opposite the opening 15 in the fixed jaw, at which point I preferably thicken the jaw, as shown at 14. This opening 21 is threaded, to receive the threaded end of bolt 10, presently described. Pins 6 are extended inward from the rear end of the movable jaw in position to enter the openings 20 in the end of plate 4. These pins may be formed integral with the jaw 5; but for convenience in manufacturing and applying the parts I prefer to form them separate, as shown. The bolt 10 is provided with a head, 7, next to which the bolt is preferably enlarged, as shown at 9, in order to more conveniently enable the forming of the annular groove 12, when applied to the parts in the manner shown in Fig. 2. The groove 12 comes opposite to the opening 19, and the pin 8 is inserted and projected into the groove 12, and prevents the bolt from moving out of the fixed jaw. The threaded end of this bolt turns through the threaded opening 21 in the movable jaw. By turning the bolt 10 the movable jaw may be set to and from the fixed one, so as to vary the binding force on the base of the thill, or to adjust the device to thills or shafts of different width. During this adjustment the pins 6 serve to hold the movable jaw to its true parallel position with the the fixed jaw.

The thill-iron 1 is provided with lateral bosses 3, fitted to the sockets 13 in the jaws, as shown.

My coupling is simple. The several parts, when worn, broken, or mislaid, can be made at slight expense.

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

The herein-described coupling, consisting of the clip provided with the plate 4, having in one end the openings 20, arranged in vertical series, and the jaw 18, extended forward from the opposite end of plate 4, and provided with socket 13, and intersecting openings 15 19, the movable jaw provided with socket 13, and transverse threaded opening 21, the pins 6, extending from the rear end of the movable jaw in position to enter the openings 6, the bolt 10, inserted through openings 15 and turned through openings 21, and provided with an annular groove, 12, formed in position to register with opening 19, the pin 8, and the thill provided with lateral bosses 3, all arranged substantially as and for the purposes set forth.

SAMUEL CRAIG.

Witnesses:
DANL. R. KELLY,
JOHN B. VANDERGRIFT.