(No Model.)

T. P. RANDALL.

THILL COUPLING.

No. 313,528. Patented Mar. 10, 1885.

Fig. 1.

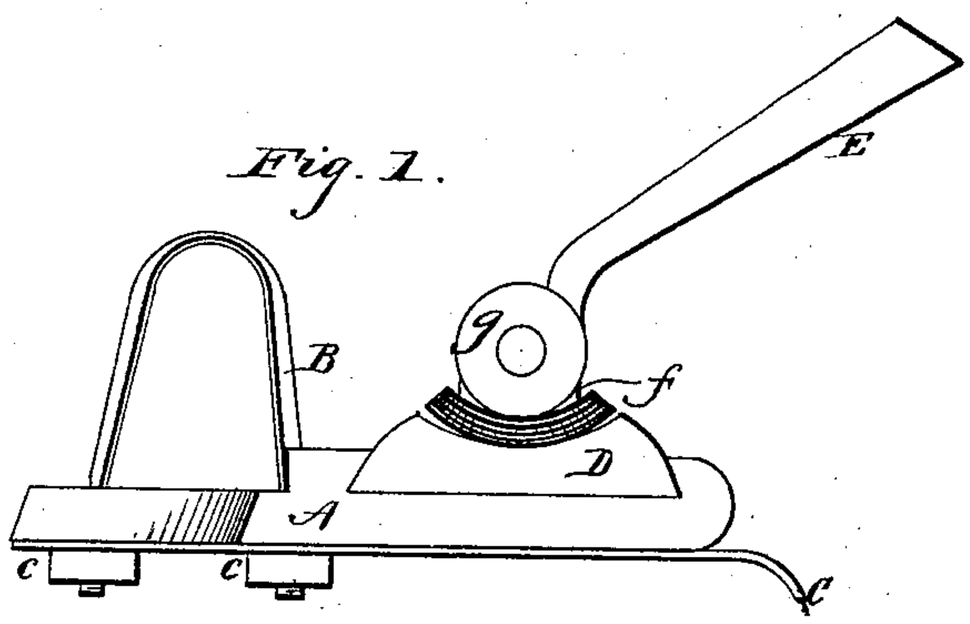


Fig. 2.

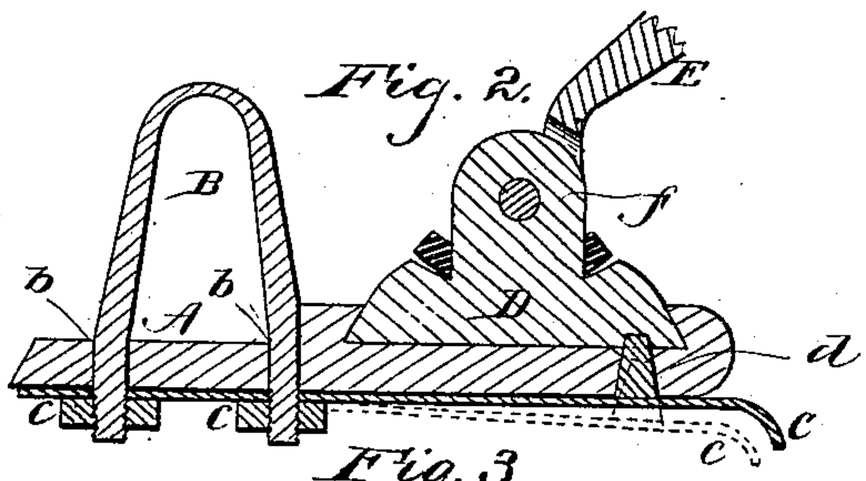


Fig. 3.

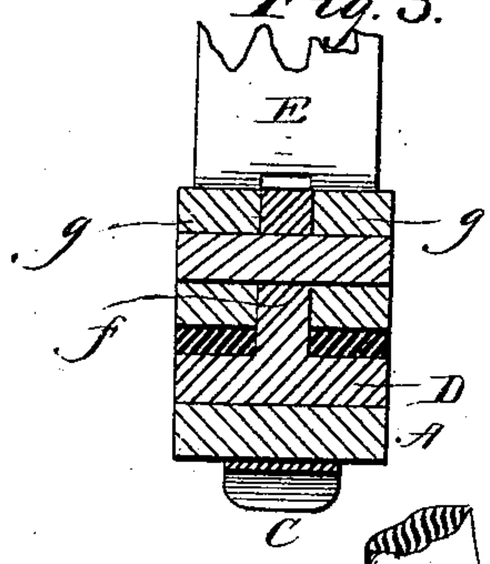
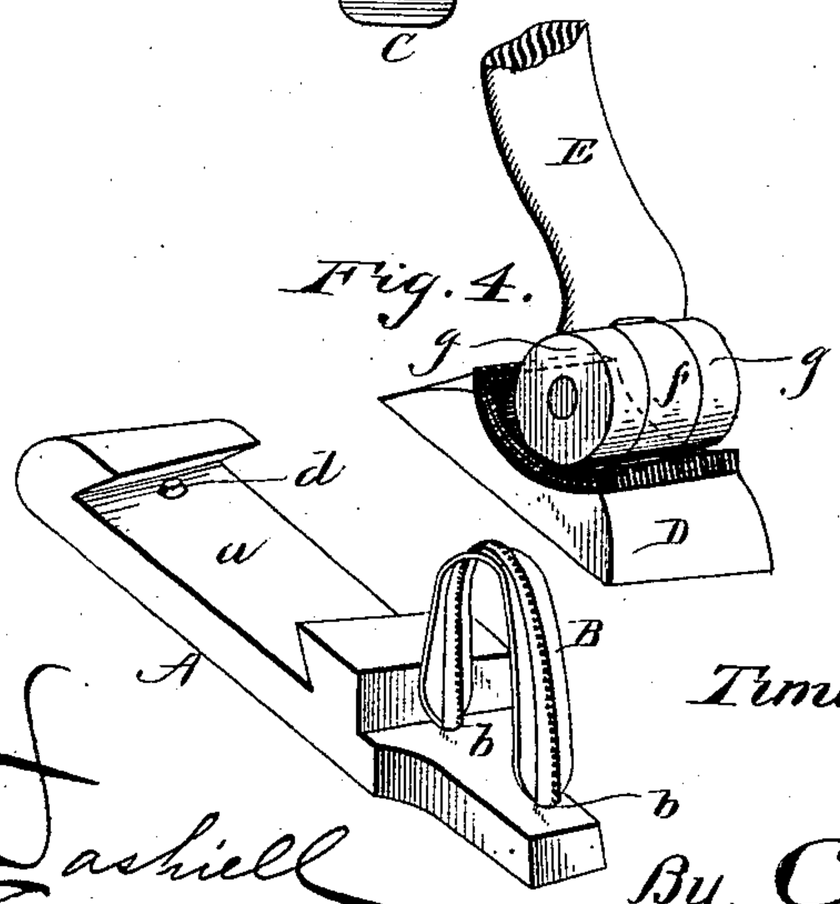


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

TIMOTHY P. RANDALL, OF SCOFIELD, MICHIGAN, ASSIGNOR OF ONE-FOURTH TO ELISHA W. RANDALL, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 313,528, dated March 10, 1885.

Application filed November 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY P. RANDALL, a citizen of the United States, residing at Scofield, in the county of Monroe and State of Michigan, have invented a new and useful Improvement in Thill-Couplings, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to thill-couplings; and it has for its object to provide improved means for connecting the thill and draw irons, whereby said thill-irons may be readily removed from the draw-irons when desired.

A further object of the invention is to provide improved means for connecting the draw and thill irons which shall be cheap and simple in their construction, and which will hold the parts in place against accidental detachment.

With these ends in view the invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a thill-coupling constructed in accordance with my invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse vertical section, and Fig. 4 is a perspective view of the thill-irons detached from the draw-iron.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents the draw-iron, which is provided on its upper side near the forward end thereof with a dovetailed recess, *a*.

B represents the clip, the ends of which pass through holes or openings *b*, said ends being screw-threaded. Upon the ends of the clip is mounted a flat spring-plate, C, which is held in place by nuts *c*, which also secure the clip in position. The forward end of the spring-plate extends slightly beyond the forward end of the draw-iron, and is bent downwardly to form a finger-piece. A recess or opening, *d*, is provided in the draw-iron near the forward end of the dovetailed recess or seat, and adapted to enter this recess or opening and project above the same is a lug formed upon the upper side of the spring-plate.

D represents a plate which is dovetailed in form, and which is provided with an upwardly-extending lug or ear, *f*, having a hole or opening and located midway between the sides of the dovetailed plate.

E represents the thill-iron, which is provided with rearwardly-extending ears or lugs *g*, which are adapted to fit over the lug upon the dovetailed plate. A bolt passes through the registering holes or openings of the ears or lugs and pivotally secures the thill-iron to the dovetailed plate, the bolt being held rigid in the ears of the thill-iron and turning therewith. The dovetailed plate is provided on its upper side with a circular recess or depression, in which is located a strip of rubber, which serves as a seat for the ears or lugs on the thill-iron.

The operation is as follows: The dovetailed plate is slid into the dovetailed recess or seat of the draw-iron, and when the recess on the under side of the dovetailed plate has reached the upwardly-projecting lug of the spring-plate said lug will seat itself in such recess and prevent the detachment of the plate until the lug has been removed from said recess. To detach the plate the finger-piece of the spring-plate is pushed downwardly and forces the lug from engagement with the plate, which may then be readily removed. By this means of attachment the thills of a carriage may be readily removed when so desired or found necessary. Moreover, the means of attachment are cheap, simple, and effective, and can be readily and easily applied.

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

1. In a thill-coupling, the combination, with a draw-iron, of a detachable plate carrying a journaled thill-iron, and a spring-plate for holding said plate against accidental detachment, as set forth.

2. The combination, with a draw-iron having a dovetailed recess, of a dovetailed plate carrying a journaled thill-iron, and a spring-plate for holding the parts in position, substantially as set forth.

3. In a thill-coupling, the combination, with a draw-iron having a dovetailed recess upon

its upper side, of a dovetailed plate carrying a journaled thill-iron, and a spring-plate carrying a lug adapted to lock said draw-iron and dovetailed plate in position, as set forth.

4. In a thill-coupling, the combination, with a draw-iron having a dovetailed recess upon its upper side near the forward end thereof, and an opening communicating with said recess near the forward end thereof, of a dovetailed plate carrying a journaled thill-iron, and having a recess on its under side, and a spring-plate secured to the under side of the draw-iron, said plate having an upwardly-projecting lug, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

TIMOTHY P. RANDALL.

Witnesses:
JOHN KILEY,
JULIUS KING.