R. C. MILLINGS.
THILL-COUPLING.

No. 193,536. Patented July 24, 1877.

Fig. 1.

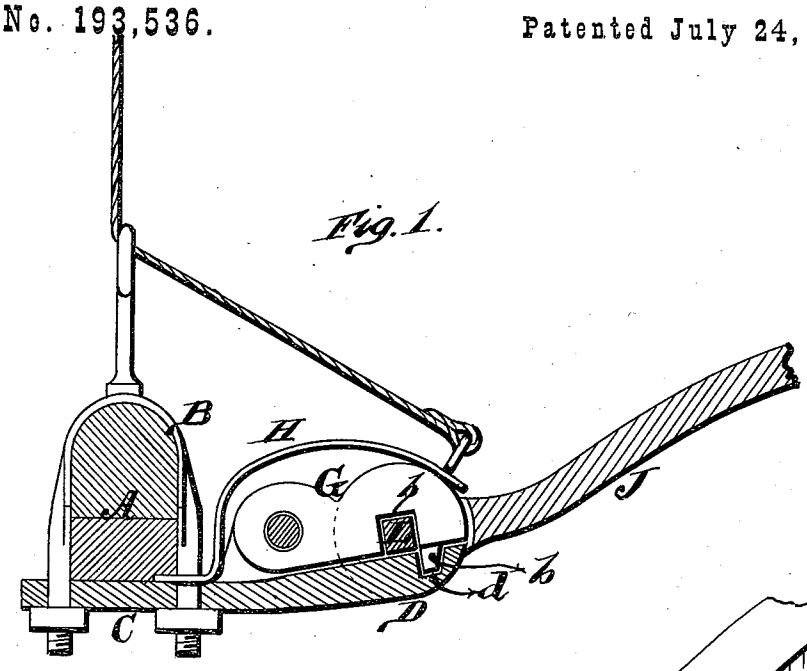


Fig. 3.

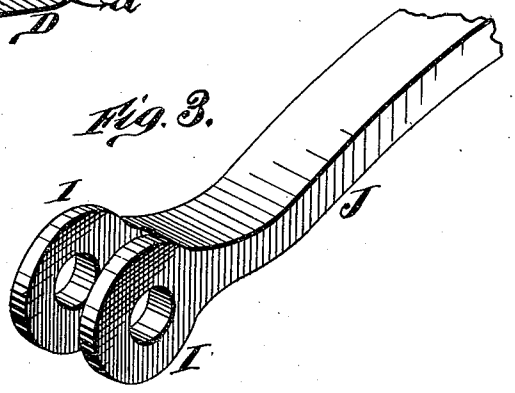


Fig. 2.

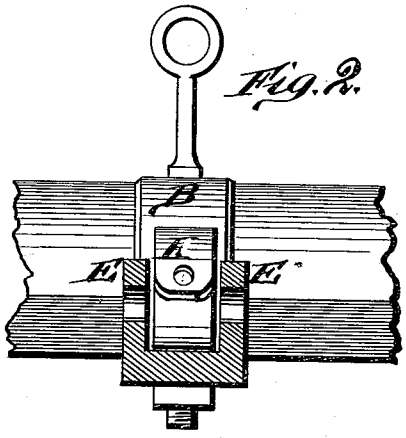


Fig. 4.

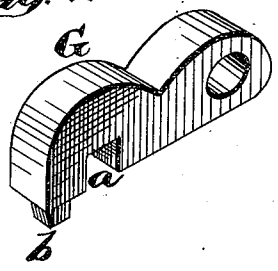
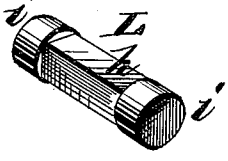


Fig. 5.



WITNESSES

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ROBERT C. MILLINGS, OF CHARLESTON, SOUTH CAROLINA.

IMPROVEMENT IN THILL-COUPLINGS.

Specification forming part of Letters Patent No. **193,536**, dated July 24, 1877; application filed June 30, 1877.

To all whom it may concern:

Be it known that I, ROBERT C. MILLINGS, of Charleston, in the county of Charleston and State of South Carolina, have invented a new and valuable Improvement in Shaft-Coupling; and I do 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical central sectional view of my shaft-coupling. Fig. 2 is an end view. Figs. 3, 4, 5 are perspective details of the same.

The nature of my invention consists in the construction and arrangement of a device for attaching and detaching shafts and poles to and from vehicles, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the front axle of a vehicle, over which is passed the usual clip B. C is the bottom plate or bar of this clip, which is extended forward a suitable distance to form the jaw D.

From the plate or bar C, at the inner end of the jaw D, are two upwardly-projecting ears, E E, between which is pivoted a movable jaw, G, held down upon the stationary jaw D by means of a spring, H, as shown.

In the under side of the pivoted jaw G is formed a square recess, *a*, and from the extreme end of said movable or pivoted jaw projects a lug, pin, or tenon, *b*, which enters a corresponding recess, *d*, made in the upper face of the stationary jaw D at or near the outer end.

J represents the thill-iron, formed at its rear or inner end with two projecting circular ears, I I, at such distance apart as to fit on the sides of the jaws D and G, as shown. In these jaws are central round holes, as shown, for the reception of a bolt, L. The center portion of this bolt is square, as shown at *h*, to fit in the square recess *a* of the upper pivoted jaw G, while the ends *i i* of said bolt are round, and fit in the holes in the ears I I.

By raising the jaw G the bolt L may be inserted in place, and when said bolt enters the recess *a* the jaw G springs down and retains the bolt in place, when the thill-iron is coupled to the clip. If by any strain on the shafts or pole the jaw G should become partially raised, the tenon *b* will prevent the escape of the bolt L, while the thill-iron can be at all times turned up and down on the rounded ends *i* of said bolt as the fulcrum.

By raising the jaw G to a certain height the thill-iron and its bolt can be easily taken out, and a cord or chain may be attached to said jaw, and run back to the vehicle for detaching the shafts instantaneously in case of the team running away.

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

1. In a thill-coupling, the pivoted jaw G, provided with square recess *a*, in combination with the thill-iron J, having perforated ends I I, and the bolt L, having square counter *h* and rounded ends *i i*, substantially as and for the purposes herein set forth.

2. The combination of the stationary jaw D, with recess in its end, as described, the pivoted jaw G, with recess *a* and tenon *b*, and the spring H, substantially as and for the purposes herein set forth.

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

ROBERT C. MILLINGS.

Witnesses:
F. J. WINKLER,
W. H. AHRENS.