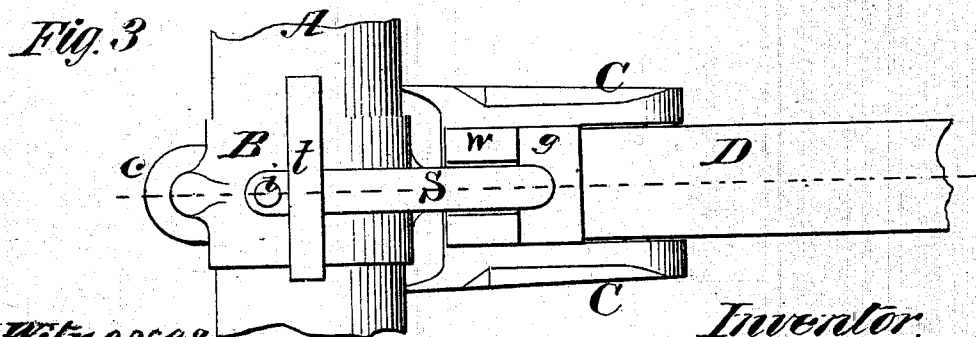
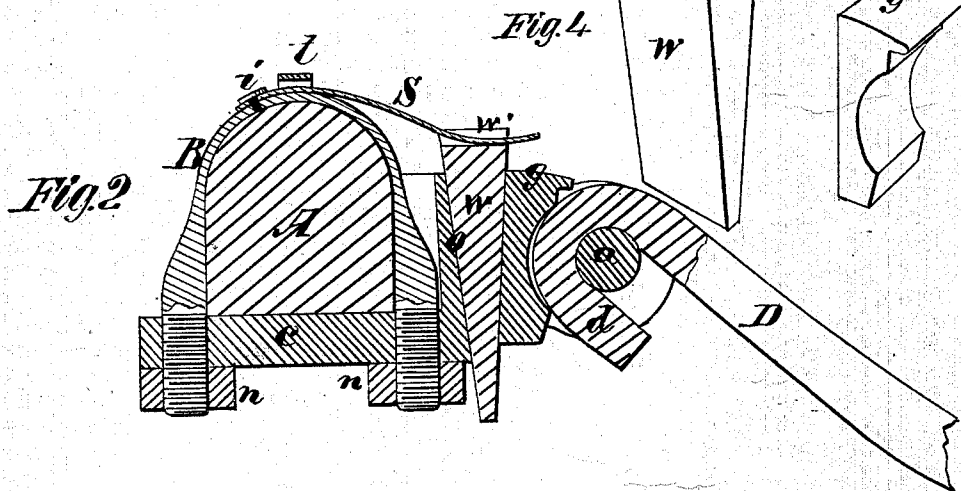
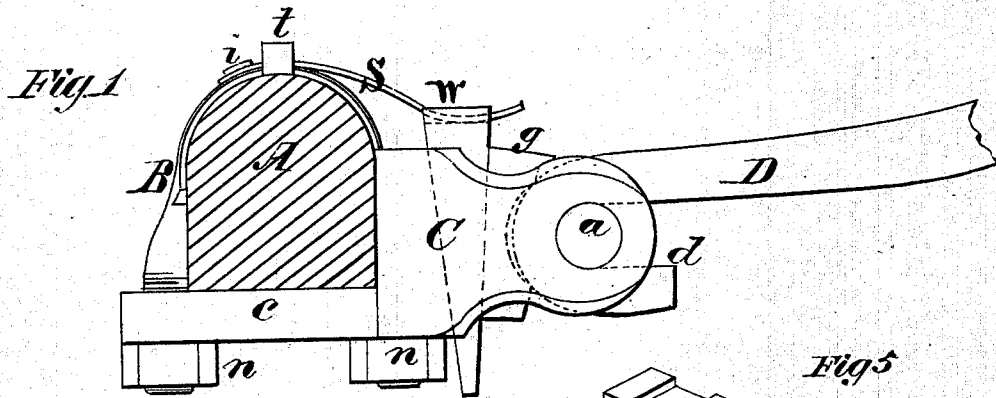


E. P. CONRICK.
Thill-Couplings.

No. 146,124.

Patented Jan. 6, 1874.



Witnesses
R. Campbell,
J. A. Campbell.

Inventor,
Edward P. Conrick,
by his Atty.
Mason Farnwick Lawrence

UNITED STATES PATENT OFFICE.

EDWARD P. CONRICK, OF DUBUQUE, IOWA, ASSIGNOR OF THREE-FOURTHS
HIS RIGHT TO JAMES O. CONRICK, FRANK CONRICK, AND IRANE Z.
MERRIAM, OF SAME PLACE.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **146,124**, dated January 6, 1874; application filed
April 21, 1873.

To all whom it may concern:

Be it known that I, EDWARD P. CONRICK, of Dubuque, in the county of Dubuque and State of Iowa, have invented a new and Improved Safety-Coupling for the Draft-Poles and Thills of Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a view of one side of the coupling applied on an axle shown in section. Fig. 2 is a vertical and central section through the coupling. Fig. 3 is a top view of the same. Fig. 4 is a perspective view of the elastic wedge-cushion. Fig. 5 is a perspective view of the detachable socket.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain improvements of couplings for the thills and draft-poles of vehicles, the objects of which are, safety against the casual detachment of thills or poles; also, to afford a convenient and ready attachment and detachment, or attachment of the thills or poles; and, also, to guard against rattling in consequence of wear on the shackle-bar and eye of the thill or pole irons, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to fully understand it.

In the accompanying drawing, A represents the section of an axle, and B a clip for securing my improved coupling to this axle. The thill or draft-pole iron D is constructed with a hook, *d*, which hooks downward upon a horizontal pivot-bar, *a*, which is riveted across two jaws of a shackle, C, which shackle is constructed with a clip-brace extension, *e*, through which the screw-threaded ends of the clip B pass and receive nuts *n n* on their ends. In this way the shackle C is rigidly secured to the axle. Between the pivot-bar *a* and the inclined surface *o* of the shackle, and between the two jaws of this shackle, is a space of sufficient size to allow a detachment from and an attachment of the hook *d* to the pivot-bar *a*,

when the thill-iron is in the inclined position shown in Fig. 2. In no other position of the thill-iron can its hook be detached from the pivot-pin *a*. In said space I apply a socket-piece, *g*, and a wedge, *w*. The socket-piece *g* is of metal, and is constructed with one concave surface corresponding to and impinging against the corresponding convex surface of the hooked portion *d* of the thill-iron D. Between this socket-piece *g* and the back surface of the shackle is placed the wedge *w*, which is preferably made of india-rubber with a notch, *w'*, across its upper end. (Shown more clearly by Fig. 4.) To prevent the possibility of the wedge *w* from getting out of place, I employ a metal spring, S, which is received into the notch *w'*, and which is pivoted to the clip B at *i*, and crossed by a bridge, *t*. The free end of the spring S is laterally movable about the pin *i*, for the purpose of removing it from the wedge *w* when it is desired to remove this wedge and the socket-piece *g* from their recess. The spring S also serves as a means for keeping the socket-piece *g* in close contact with the hooked portion *d* of the thill-iron by depressing the wedge as the surfaces of *d*, *g*, and *a* wear away.

It will be observed that the inclined surface *o* allows the cushion *w* to be made tapering or wedge shape, and have a bearing its entire length. The wedge shape of cushion allows the spring S to force this cushion down into its recess and take up the wear of the hook D *d*, pin *a*, and socket *g*. It will also be observed that when the socket *g* and cushion *w* are removed, and the thill-iron raised from an inclined to a horizontal position, as shown in Fig. 1, the space between the convex part of the hook and the inclined surface *o* opposite is lessened, so that the hook cannot pass the pivot-bar *a*. The only position in which the hook can pass the pivot-bar is the one shown in Fig. 1.

I am aware that it is not a new thing to interpose a rubber block between the eye of a thill-iron on the back surface of a coupling clip or shackle for preventing rattling, and this I do not claim as new. I am also aware that

thill and pole irons have been constructed with hooked ends, the hooks being turned downward. This feature has been employed with a rubber block or cushion before my invention, and I do not claim it. I am also aware that a hooked thill-iron which can be lifted off of the holding or jack bolt without the necessity of elevating the forward end of the thill to a position higher than said bolt is old; and, also, that a spring-key has been used to hold this hook in contact with the bolt; therefore, I do not claim such construction as my invention; but

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

1. The combination of the stationary bolt *a*, hooked thill-iron *D* *a*, block *g*, and rubber wedge *w*, the said parts being fitted to jaws of a clip-plate, *c*, substantially as specified.
2. The rubber wedge *w* for a thill-coupling, notched at *w'*, in combination with the spring *S*, as and for the purpose described.

EDWARD P. CONRICK.

Witnesses:

IRANE Z. MERRIAM,
R. J. GIBBS.