(No Model.)

W. H. PARDEE.

THILL COUPLING.

No. 394,290. Patented Dec. 11, 1888.

Fig. 1.

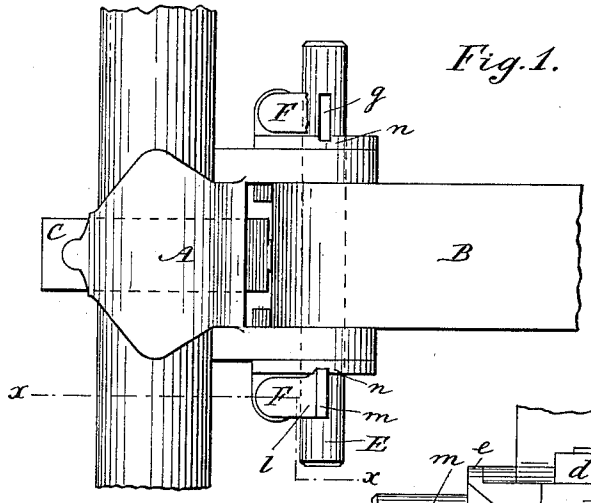


Fig. 2.

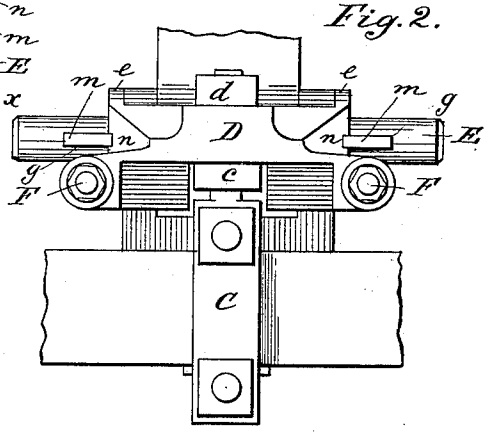


Fig. 3.

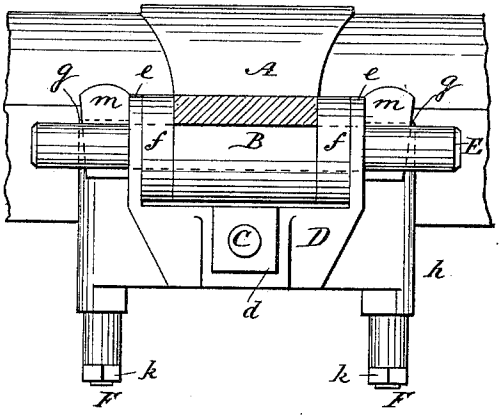
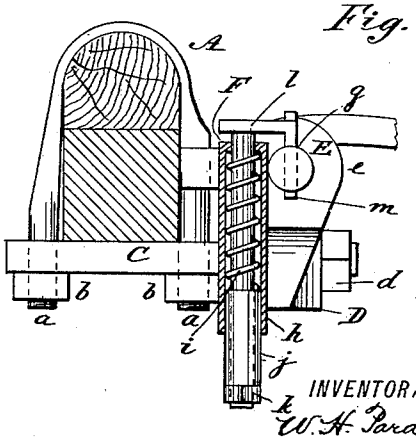


Fig. 4.



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WILLIAM H. PARDEE, OF COLUMBIA, DAKOTA TERRITORY.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 394,290, dated December 11, 1888.

Application filed May 17, 1888. Serial No. 274,145. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PARDEE, of Columbia, in the county of Brown and Territory of Dakota, have invented a new and Improved Thill-Coupling, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a plan view, with parts broken away, of my improved thill-coupling. Fig. 2 is an inverted plan view. Fig. 3 is a front elevation, and Fig. 4 is a transverse section taken on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to construct a thill-coupling provided with a simple and efficient coupling-bolt fastener to prevent rattling, and which cannot become accidentally loosened.

My invention consists in the combination, with the thill-iron and clip attached to the axle of a carriage, of a mortised coupling-bolt, a pair of spring-actuated bolts, and a support for the same, all as hereinafter more fully described.

The clip A, which receives the thill-iron B, is attached to the axle in the usual way by means of the rounded and threaded ends *a* and cross-bar C and nuts *b*, received on the ends *a*. The cross-bar C is prolonged beyond the clip A and rounded and threaded to receive nuts *c d*. Upon the prolongation of the cross-bar C is secured the bolt-holder D between the nuts *c d*. The said bolt-holder is provided with apertured ears *e*, which extend upwardly at the sides of the ears *f* of the clip A.

To the thill-iron B, the clip A, and the ears *e* of the bolt-holder D is fitted the coupling-bolt E, having mortises *g* near opposite ends and outside of the ears *e* of the bolt-holder. In the bolt-holder D are formed tubular guides *h* for the bolts F. Within the guides *h*, and surrounding the bolts F, are placed spiral springs *i*, which rest against shoulders in the upper ends of the guides *h* and bear against collars *j*, carried by the bolts, the said collars being adjustable by nuts *k*, received on the lower threaded ends of the bolts. The upper ends of the bolts are provided with right-angled arms *l*, the extremities of which extend downwardly parallel with the bolts themselves, and are tapered to form keys *m* for entering the mortises *g*. The edges of the keys *m* slide in grooves *n* in the ears *e*.

By raising the bolts F the bolt E may be withdrawn from the clip and thill-iron; but it cannot be removed without raising both of the bolts, as either bolt is sufficient to hold the coupling-bolt in its position in the coupling.

It will be observed that my improved fastening can be attached to an ordinary coupling in the manner described, or it may be formed integrally with the coupling.

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

1. In a thill-coupling, the combination, with a clip, of a mortised coupling-bolt and a spring-actuated bolt carried by the clip and engaging the mortise of the said coupling-bolt, substantially as described.

2. The combination, with the clip A and thill-iron B, of a mortised coupling-bolt, E, and two independent spring-actuated bolts, F, substantially as specified.

3. The combination, with the clip A, provided with ears *f*, the thill-iron B, and the coupling-bolt E, having mortises *g*, of the bolt-holder D and the spring-actuated bolts F, carrying the tapering keys *m*, adapted to fit into the mortises of the bolt E, substantially as specified.

4. In a thill-coupling, the combination, with a clip and its cross-bar, of a bolt-holder secured to the said cross-bar and provided with apertured ears projecting upward at the sides of the ears of the clip and with tubular guides to receive spring-actuated bolts, substantially as described.

5. In a thill-coupling, the combination, with the clip A, the cross-bar C, and the bolt-holder D, provided with the ears *e* and the tubular guides *h*, of the mortised coupling-bolt E and the spring-actuated bolts F, provided with the horizontal arms *l*, having downwardly-projecting keys *m* on their ends for entering the mortises of the coupling-bolt, substantially as herein shown and described.

WILLIAM H. PARDEE.

Witnesses:
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JOHN R. JAMES.