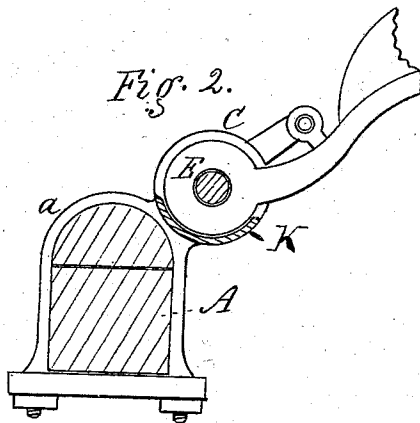


Carriage Thill-Couplings.

Patented Feb. 24, 1874.



Inventors.
 Geo. W. Cogswell,
 Louis E. Franks,
 per R. F. Osgood,
 atty.

UNITED STATES PATENT OFFICE.

GEORGE W. COGSWELL AND LOUIS E. FRANKS, OF ROCHESTER, NEW YORK,
ASSIGNORS, BY MESNE ASSIGNMENTS, OF TWO-THIRDS THEIR RIGHT TO
JOHN T. CALEY AND WILLIAM H. CALEY, OF SAME PLACE.

IMPROVEMENT IN CARRIAGE-THILL COUPLINGS.

Specification forming part of Letters Patent No. **147,824**, dated February 24, 1874; application filed
November 7, 1873.

To all whom it may concern:

Be it known that we, GEORGE W. COGSWELL and LOUIS E. FRANKS, both of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Carriage-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

This invention relates to certain improvements in thill-couplings for carriages; and consists in providing the sliding pin, which connects the thill-iron with the socket on the axle, with a lever-arm, from which projects a lateral locking-pin, adapted to an eye on the thill, so that when the thill is raised to a vertical position the locking-pin serves to turn the sliding bolt and bring its lever-arm in coincidence with a slot in the socket on the axle, when, by sliding the coupling pin or bolt laterally, the thills are uncoupled from the carriage, as will be hereinafter described.

In the drawings, Figure 1 is a plan. Fig. 2 is a cross-section in line *x x*.

A is the axle, and B the thills, of an ordinary carriage. C C are the coupling heads or sockets, secured to the axle by the ordinary clips or straps *a a*. These heads are made longer than usual, so that, in addition to the jaws *b b* for receiving the thill-eye D, they have a block or extension, *c*, which projects some distance inward, as shown. The thill-eye is retained by a long pin, E, which rests in a socket of the coupling-head, and extends through from end to end, thus having a long bearing, which obviates, to a great degree, the wear and consequent loose action so common in ordinary couplings.

In the extension *c* of the coupling-head is formed a right-angled slot, *d d'*, similar to a bayonet-slot. The horizontal portion *d* of the slot lies toward the back side of the coupling-head, and is of considerable extent. The vertical or cross portion *d'* of the slot extends outward from the inner end of *d*, and cuts to a vertical line. To the pin E is attached a lever or arm, *f*. This lever rests in the slot *d d'*, and by means of it the pin is operated. When the thill-eye is coupled, the lever rests in the cross-slot *d'*, and serves as a stop to prevent the disengagement of the pin.

In uncoupling, the lever is thrown back to coincide with the horizontal slot *d*, when the pin can be shot endwise, the lever entering said horizontal slot.

The lever-arm *f* of the sliding bolt E is provided with a lateral locking-pin, *h*, which is passed through an eye, *g*, on the upper or under side of the thill B. This locking-pin *h* passes through the eye *g*, and hence the lever forms a fixture with the thill-iron, and plays up and down with it.

Two advantages are gained by this arrangement: First, the lever can never become displaced or thrown up by any sudden jar to fall into the horizontal slot *d*, and thus accidentally uncouple the parts; and, second, there will be no movement between the thill-eye and coupling-pin, as they are relatively stationary, and move only together. The wear, therefore, upon the pin is avoided in the narrow thickness of the thill-eye, and is all thrown upon the long bearing in the coupling-head C, and since this bearing is much longer than usual, the wear there is very slow. This is a great advantage over the ordinary narrow couplings, where the thill-eye turns freely upon the pin.

We design to use a leather shield or covering over the couplings to prevent the entrance of dirt and snow.

On the under side of the coupling-heads is a concave bed or bearing, *k*, which serves to receive and sustain the thill-iron while being coupled.

This coupling may be used for any and all purposes to which such a coupling is adapted in addition to that above specified.

We claim—

The arm *f* of the sliding pin E, having the lateral locking-arm *h*, in combination with the thill B, having the eye *g*, and with the coupling *c*, with its right-angled slot *d d'*, all constructed to operate substantially as described.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

GEORGE W. COGSWELL.
LOUIS E. FRANKS.

Witnesses:

R. F. OSGOOD,
E. B. SCOTT.