M. M. Copp.

Thill-Coupling.

No. 78579 Patented Jun. 2, 1868.

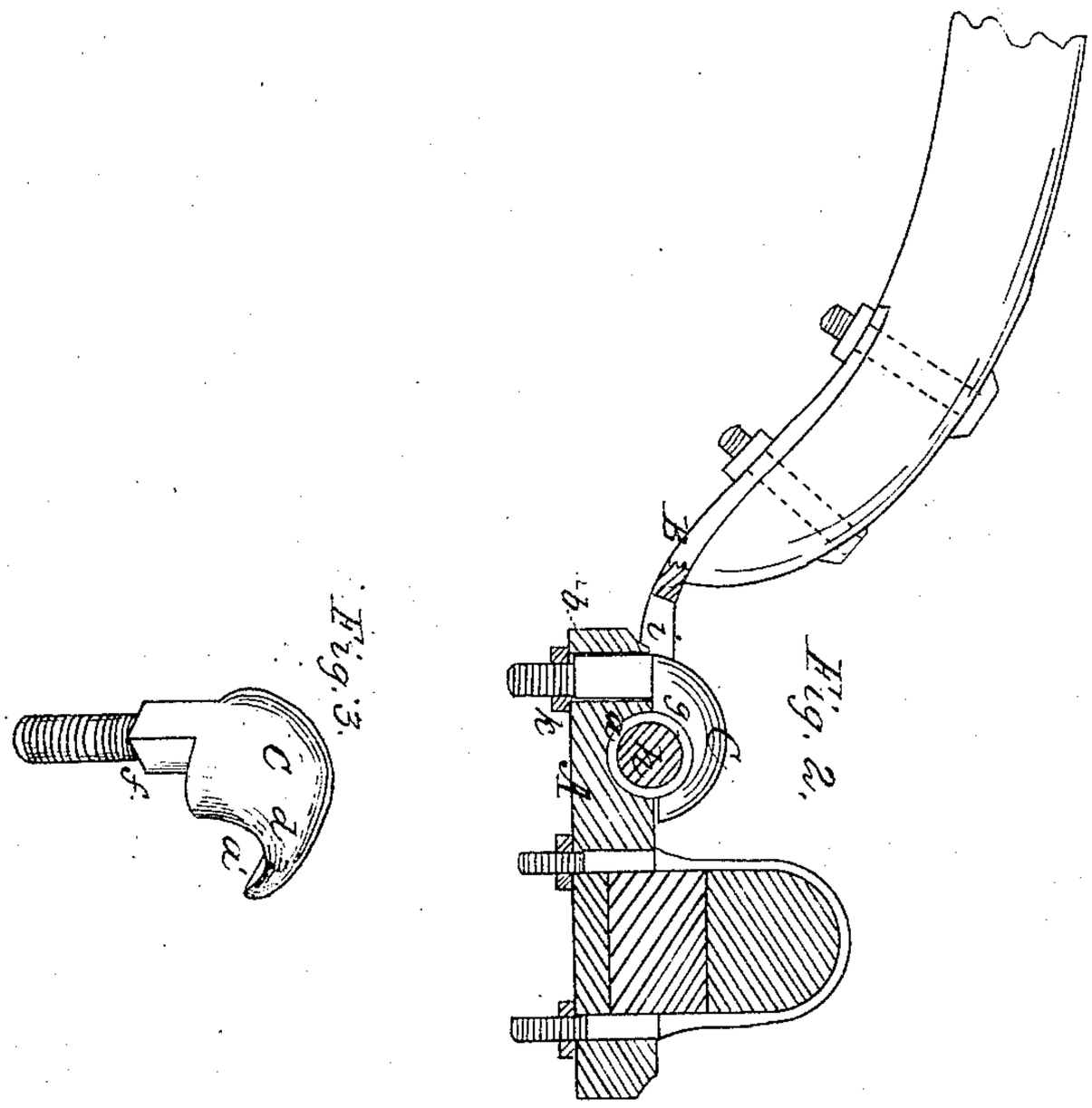

Fig. 1.

Fig. 2.

Fig. 3.

Witnesses:

Chas. L. Spencer

J. A. Davis

Inventor:

M. M. Copp.

By J. Fraser & Co.

Attys.

United States Patent Office.

MONROE M. COPP, OF ALBION, ASSIGNOR TO A. KARNES, OF ROCHESTER, NEW YORK.

Letters Patent No. 78,579, *dated June* 2, 1868.

IMPROVED THILL-COUPLING FOR CARRIAGES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, MONROE M. COPP, of Albion, in the county of Orleans, and State of New York, assignor to A. Karnes, of Rochester, New York, have invented a certain new and useful Improvement in Thill-Couplings for Carriages; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a plan of my improved coupling.

Figure 2, a longitudinal vertical section.

Figure 3, a perspective view of the clamp-hook.

Like letters of reference indicate corresponding parts in all the figures.

My invention consists in the employment of a clamp-hook at the end of the jack, in combination with a thill-iron, made branched or forked at its end, to stride the hook, the whole as hereinafter described.

As represented in the drawings, A is the jack, secured to the axle by the usual clip, and B is the thill-iron coupling thereto.

The front end of the jack projects some distance out from the axle, and has a half circular groove, *a*, for the reception of the journal of the thill-iron, and a hole, *b*, for the reception of the screw-bolt of the clamp-hook.

The clamp-hook C consists simply of a head, *d*, with half circular groove, *a'*, enclosing the journal of the thill-iron, and screw-bolt *f* passing down through hole *b* of the jack, having a nut, *k*, screwing thereon for tightening the clamp-hook down. The groove *a a'* is of sufficient size to admit of a packing, *g*, being wrapped around the journal of the thill-iron.

The thill-iron, instead of being of the ordinary solid form, resting between jaws of the jack, has a journal, *h*, that fits in the groove *a a'*, and two forks or branches, *i i*, that stride the clamp-hook.

There are several important advantages secured by this arrangement. First, the construction is very simple and cheap, much more so than in any other device with which I am acquainted, and the device is very strong. Second, the thill-iron is inserted or removed with great dispatch and ease. To accomplish this, it is only necessary to turn or unturn the nut *k*. It will be noticed that in removing the thill-iron, the clamp-hook has to be raised only the thickness of the journal *h*, and this can be done without detaching the nut *k*. This is of great benefit, for the parts thus secured cannot get lost. In ordinary couplings, the parts have to be entirely detached and disconnected. When the nut is unscrewed in my device, the hook can be turned around to one side, so that the thill-iron can be lifted directly out without sliding backward. Third, the packing is readily inserted or removed. It is only necessary to cut a strip off the proper length, and wind it on the journal *h*, lay it in the groove, and clamp the hook down upon it. In ordinary couplings, where a packing is fitted around the bolt passing through the thill-iron, it is a difficult task to apply it. In mine it is readily done, for the reason that the journal, upon which it is wound, is open, and the hook, under which it is inserted, is readily turned to one side.

The peculiar construction of the thill-iron, with the journal *h* and branches *i i*, not only enables the same to stride the hook, but it also imparts additional strength to that portion of the iron where the greatest strain comes.

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

The convex-headed cap C, provided with the square shoulder *b* and screw-nut *k*, said head being recessed to receive one-half of the draw-bolt *h*, and form, with the recess of the bar A, a complete eye, and a shield to exclude dust from the same, in combination with the forked thill-iron B and jack A, arranged and operating substantially as and for the purposes set forth.

In witness whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

MONROE M. COPP.

Witnesses:

J. A. DAVIS,

CHAS. F. SPENCE.