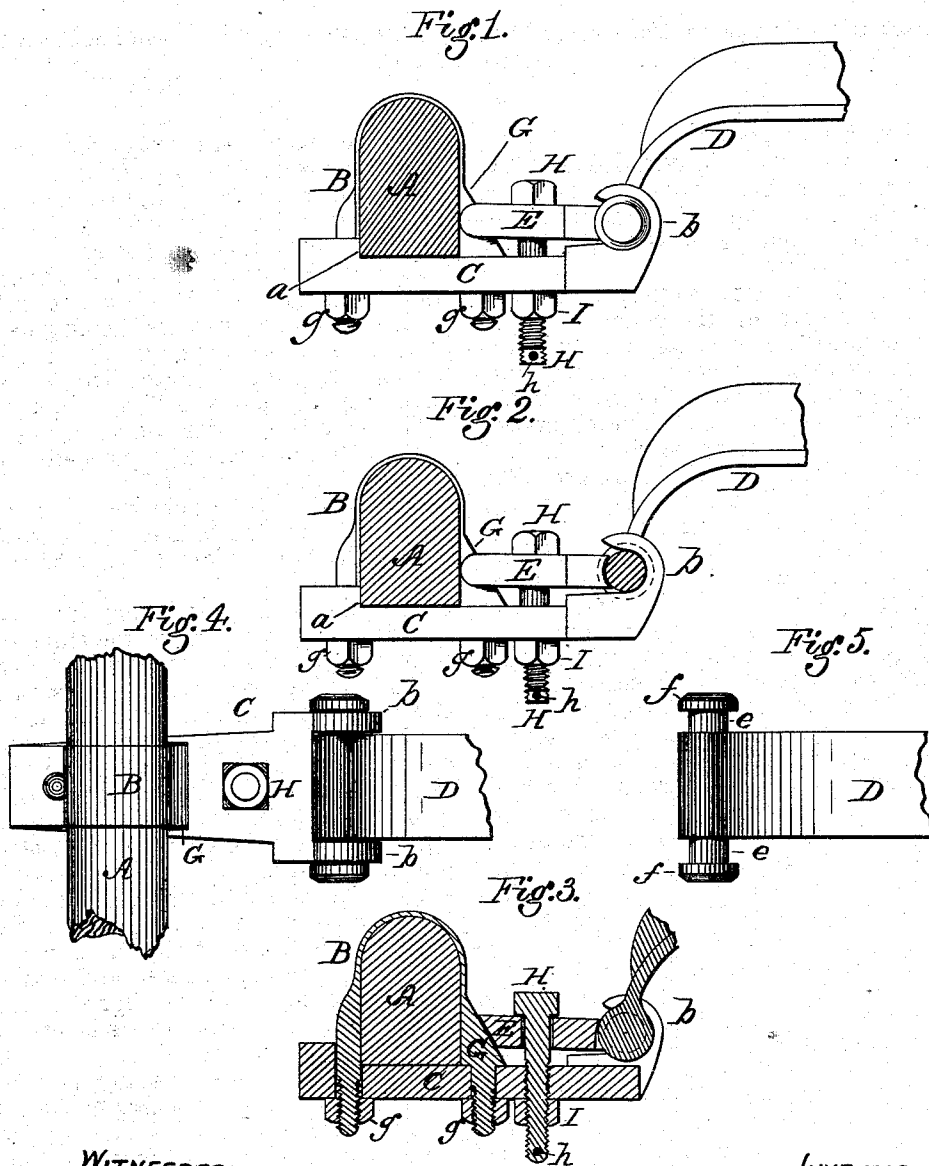


J. R. BURVILLE.
Thill-Couplings.

No. 158,399.

Patented Jan. 5, 1875.



WITNESSES:
Wm. H. Dodge
Thos. Houghton.

INVENTOR:
James R. Burville
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UNITED STATES PATENT OFFICE.

JAMES R. BURVILLE, OF BAINBRIDGE, OHIO, ASSIGNOR OF ONE-HALF HIS
RIGHT TO WM. H. H. DUNN, OF SAME PLACE.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **158,399**, dated January 5, 1875; application filed
November 30, 1874.

To all whom it may concern:

Be it known that I, JAMES R. BURVILLE, of Bainbridge, in the county of Ross and State of Ohio, have invented certain Improvements in Thill-Couplings, of which the following is a specification:

My invention consists mainly in a novel manner of constructing the coupling to permit compensation for the wear of the parts.

Figure 1 represents a side view of my coupling in position; Fig. 2, a like view of the same, with the end of one journal broken away to show the seat or bearing; Fig. 3, a longitudinal central section of the same; Fig. 4, a top-plan view of the same; Fig. 5, a plan view of the thill-iron or tang.

A represents the carriage-axle; B, the clip-band; C, the clip-plate, forming the body of the coupling; and D, the thill-iron. The band, as usual, fits down over the axle, and has its ends formed into bolts, which pass down through the plate C and receive nuts *g*, which hold the plate up in place against the under side of the axle. The plate is provided at its rear end with a shoulder, *a*, which engages behind the axle, as shown in Figs. 1, 2, and 3. The plate extends forward of the axle a considerable distance, and at its forward end it is provided on its sides with two upright hooks or notched ears, *b*, having their open sides toward the rear, as shown in Figs. 1, 2, and 3. The thill-iron or tang D is made of the proper width and size to enter between the hooks *b*, and is provided on its opposite sides with two solid journals, *e*, which rest in the hooks and secure the thill-iron to the plate C, as shown. The thill-iron is held in place and prevented from disconnecting by a plate, E, one end of which bears against the band B, while the other bears against the thill-iron and holds the journals in the hooks. The plate E is secured in place by a vertical bolt, H, which passes down through the plate C, as shown.

In order that compensation may be made for the wear of the parts, the front of the band B is provided with an inclined projection, G, against which the end of the plate E bears, and the said plate made of such length that when the parts are new it will not turn down to a horizontal position.

As the parts wear away, the end of the plate E is drawn down upon the inclined face, which pushes the plate endwise, so that it fits snugly against the thill-iron and forces the latter snugly against the hooks.

In order to prevent the plate E from being rattled loose, the bolt H is not only provided with a screw-thread, engaging in the plate C, but with a jam-nut, I, and also with a hole, *h*, through its lower end, to receive a pin or key, as shown in Figs. 1, 2, and 3.

The plate E may bear against the entire end of the thill-iron, or merely provided with arms to bear against the journals.

In order to strengthen the parts and exclude dust, &c., the ends of the journals may be provided with enlarged heads or flanges *f*, as shown.

The plate E may also be provided with lips to engage over the sides of the clip-band and prevent any lateral movement of the plate.

The coupling, constructed as described and shown, is cheap, strong, and simple. It can be kept snug and tight in its parts, and used without noise as long as it remains in service; and it permits a ready removal or attachment of the thills, as it is only necessary to remove the plate E and then hook or unhook the thill-iron.

It will be seen that by providing the plate C with the shoulder *a*, the draft or strain is brought directly upon the axle instead of upon the clip-band, as usual, and that, consequently, the clip-band is relieved of much of the usual strain, so that there is less danger of its being broken than usual.

What I claim as my invention is—

The thill-coupling consisting of the body A, provided with the hooks *b*, the clip-band B, provided with the inclined face, the T-headed thill-iron D, the inclined bar E, bearing at one end directly against the thill-iron, and at the opposite end against the inclined face of the band, and the bolt H, all combined as set forth.

JAMES R. BURVILLE.

Witnesses:

HENRY C. TULLEYS,
SAMUEL HIGGINS.