

J. W. INNIS.

Thill-Coupling.

No. 64,226.

Patented Apr. 30, 1867.

Fig. 2.

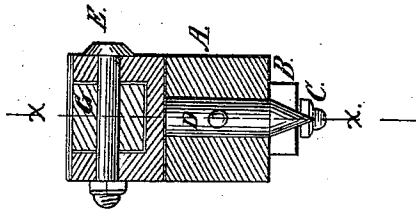
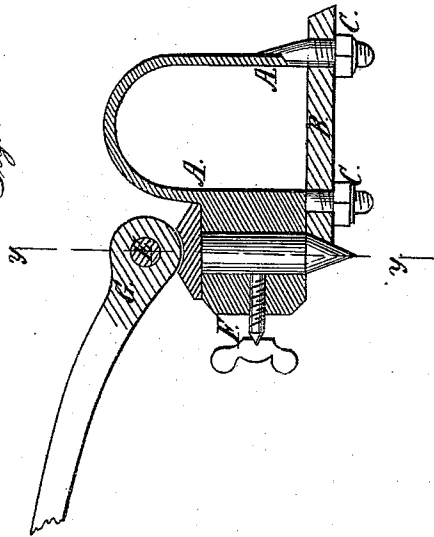


Fig. 1.



Witnesses:

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Inventor.

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# United States Patent Office.

JAMES W. INNIS, OF SALEM, INDIANA.

Letters Patent No. 61,226, dated April 30, 1867.

## IMPROVEMENT IN THILL-COUPLING.

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, JAMES W. INNIS, of Salem, in the county of Washington, and State of Indiana, have invented a new and useful Improvement in Thill-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved thill-coupling, taken through the line *x x*, fig. 2.

Figure 2 is a vertical cross-section of the same, taken through the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved thill-coupling, simple in construction, neat in appearance, and which will hold the thills securely without rattling. And it consists of a thill-coupling formed by combining the pin to which the thill-iron is pivoted, the screw by which and the clip to which the said pin is secured, with each other as hereinafter more fully described.

A is the clip that passes over the axle of the carriage. The ends of the clip terminate in two screws, which pass through the yoke B, and upon their ends are screwed two nuts C, as shown in fig. 1. By screwing up these nuts, the clip and yoke are secured to each other, and both are firmly attached to the axle. Upon the front side of the clip A, and solid with it, is formed a projection, *a'*. Through this projection is formed a vertical hole for the reception of the pin D, to which the eye of the thill-iron is pivoted. The head of the pin D is broad, and fits upon the upper side of the projection *a'*. Upon the upper side of the head of the pin D are formed ears, to which the eye G of the thill-iron is pivoted by a bolt, E, as shown in fig. 2. The front of the projection *a'* is perforated horizontally, and the hole thus formed has a screw-thread cut herein for the reception of the screw F. The end of screw F is rounded off to fit into a cavity formed on the forward side of the pin D, as shown in figs. 1 and 2. This cavity is not exactly opposite the hole through the front of the projection *a'*, but is a little above it, so that the inclined side of the end of the screw F bears against the lower inclined side of the cavity in the side of the pin D. This construction allows compensation to be made for the wear of the parts, for as the parts wear, by forcing the screw F a little further in, the pin will be drawn down and again made tight, and all rattling will be prevented.

I claim as new, and desire to secure by Letters Patent—

The thill-coupling, consisting of the clip A, and pin-receiving projection *a'*, cast therewith, through the side of which passes the tightening-screw F, pressing into the cavity in the pin D, and operating substantially as described for the purpose specified.

JAMES W. INNIS.

Witnesses:

H. A. HART,

JAMES W. RICHE.