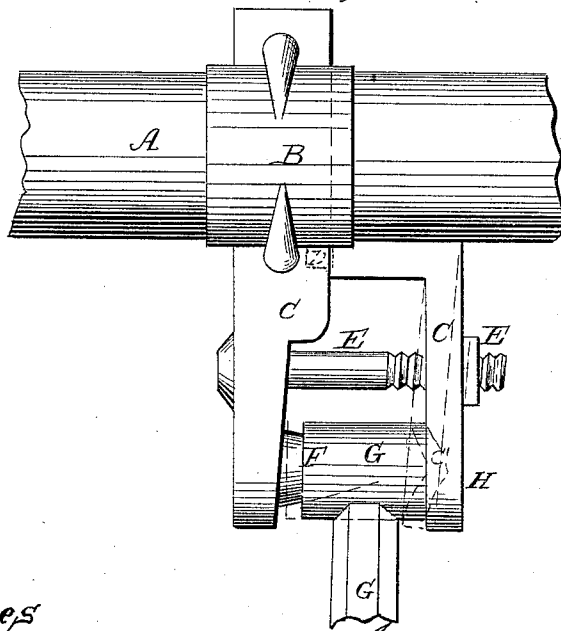
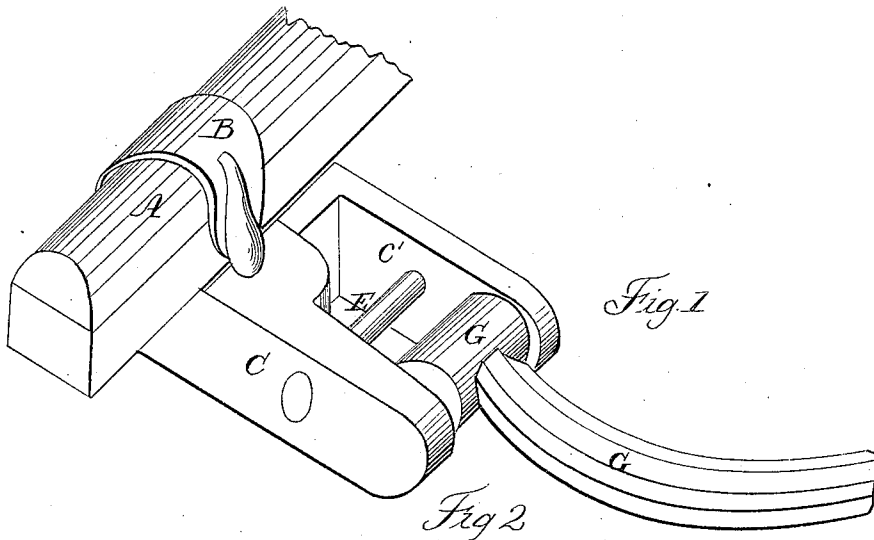


J. S. MILLER.

Thill-Coupling.

No. 58,663.

Patented Oct. 9, 1866



Witnesses

Wm. C. ...
Lawrence W. ...

Inventor

Jonathan S. Miller

D. P. Hollway & Co.
his Atty

UNITED STATES PATENT OFFICE.

JONATHAN S. MILLER, OF EVERTON, INDIANA.

IMPROVEMENT IN ATTACHING THILLS OR TONGUES TO VEHICLES.

Specification forming part of Letters Patent No. 58,663, dated October 9, 1866.

To all whom it may concern:

Be it known that I, JONATHAN S. MILLER, of Everton, in the county of Fayette and State of Indiana, have invented a new and useful Improvement in Clips for Attaching the Fills and Tongues to the Axles of Carriages; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, made part of this specification, in which—

Figure 1 is a perspective view, and Fig. 2 is a top view, in which the changes in parts are represented in red lines.

The same letters are employed in representing the same parts.

The object of this invention is to so attach the tongues or fills of carriages that, while all noise from rattling of the parts may be avoided, the liability to accident from the displacement of the ordinary bolt is avoided.

These objects are accomplished by constructing it as follows: A is the axle of a carriage of any sort, to which the clip B, passing around the axle, attaches the jaw C, which extends under the axle, so as to receive both ends of the bolt terminations of the band B. Nuts on the end of these points of the clip tightly confine the jaw C.

From the inner face of the jaw C, near its front end, projects the conical point shown in part by the dotted lines at F in Fig. 2. This cone I forge as part of the jaw C.

A corresponding jaw, C', in the form of an L, fits against the jaw C, as shown. It has a pin, projecting from the hinder end, fitting loosely into a corresponding recess in the jaw C, and in its inner face, near the front, and precisely opposite to the cone F, it has a spherical or flattened cone-formed cup, H, drilled.

The thimble G, on the end of the brace or shaft iron by which it is attached, is formed,

having at one end a conical cup corresponding to the cone F on the jaw C, and on the other a flattened conical end, G', fitting into the recess H. The conical cup F' is made smaller than the cone F, so as to permit it to be drawn down by the bolt E in case the cone should be reduced by friction, so as to allow any play between them. The bolt E, with its nut E', holds together the jaws, and, by constraining the movable jaw C', holds the parts so closely in contact that there can be no noise, for there is no play between the cones and cups.

The clips should be so set that, in case the bolt E should be lost, the jaw C on each side being on the outside of the shafts, the cone F shall remain inserted in the cup F', even though the jaws C' were to fall off, and thus the danger of accident from losing the bolt be entirely obviated.

While the tongue or shafts is allowed free vertical motion, it is absolutely immovable laterally.

I do not claim, broadly, attaching the braces by conical projections from the faces of the clips, for this, I am aware, has been done by others.

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

The combination of a clip formed in two parts, C and C', brace G, and bolt E, when said several parts are, respectively, constructed and arranged for use substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JONATHAN S. MILLER.

Witnesses:

D. P. HOLLOWAY,
LAWRENCE MURPHY.