(No Model.)

G. E. HAMLIN.

THILL COUPLING.

No. 420,938. Patented Feb. 11, 1890.

Fig. 1

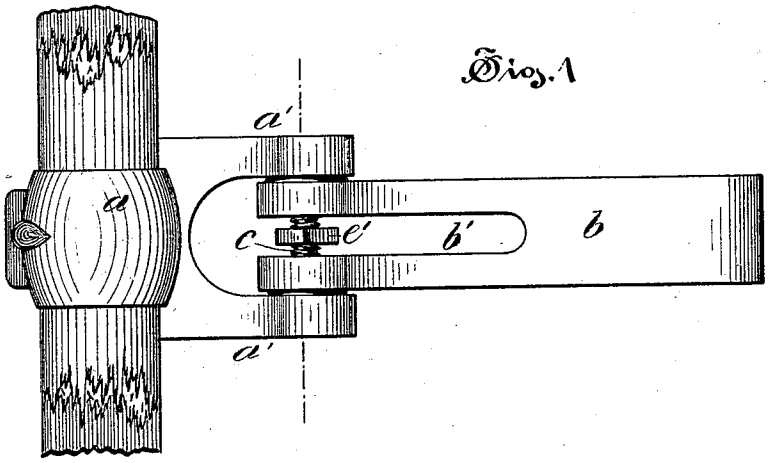


Fig. 2

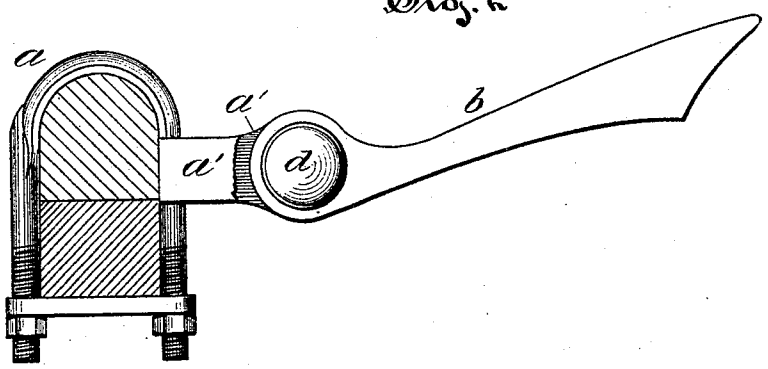
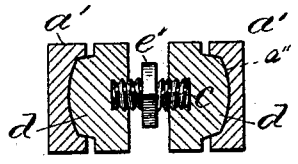


Fig. 3



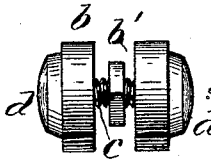


Fig. 4

Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE E. HAMLIN, OF NEW YORK, N. Y.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 420,938, dated February 11, 1890.

Application filed August 9, 1889. Serial No. 320,271. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. HAMLIN, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

The object of my invention is to provide a thill-coupling by the use of which the rattling of the coupling parts on wagons, carriages, or other vehicles shall be prevented; and to this end my invention consists in details of the several parts making up the device, and in their combination, as more particularly hereinafter described, and pointed out in the claim.

Referring to the drawings, Figure 1 is a plan or top view of a thill-coupling embodying my invention. Fig. 2 is a side view of the same, with part of the clip cut away to show construction. Fig. 3 is a detail view, in cross-section, through the coupling parts on plane denoted by line $x\ x$ of Fig. 1. Fig. 4 is a detail plan view of the pivot device, showing the relative location of the clamping-bolt and edge view of the trunnions.

In the accompanying drawings, the letter a denotes the clip or coupling part that is secured to the axle of a carriage or like vehicle, and has the forward-extending arms a', forming the yoke to which the strap b of the coupling part is attached. This strap b is preferably of metal and provided with openings, through which bolts or screws are passed to secure it to the shaft or like part of the vehicle. The end, preferably, is forked so as to form an opening b', across which the clamping-bolt c extends. The opposite ends of this bolt c extend into threaded sockets on the inner face of the forked ends of the strap d, and it is provided on one end with a right-hand screw taking into a corresponding socket in the arm of the strap adjacent to it, and on the other end with a left-hand screw taking into a corresponding socket in the opposite arm or strap. The bolt is provided, preferably midway of its length, with a section e', that is angular in cross-section, either a square or hexagonal form being preferred, so as to allow a wrench to be applied to the bolt for the purpose of turning it. The trunnions d are borne in sockets a'', that are formed on the opposite and inner sides of the yoke near the end, the yoke being rounded up at that part so as to allow for the formation of such sockets, and the trunnions are of such form that they may be inserted in the sockets by turning the screw until the forked ends of the strap b are drawn together, so as to make the shortest distance through the axis of the screw (measuring from the outer faces of the trunnions) less than between the inner faces of the arms of the yoke. The end of the strap is then inserted between the arms of the yoke, and when the trunnions are opposite the trunnion-sockets a'' the bolt is turned in a direction to spread the fork and place the trunnions that project beyond the edge of the strap in the sockets. When in the proper position, the trunnions that are formed integral with the strap b are located in the sockets in the yoke.

By means of this device a closely-fitting joint is formed, and any lateral motion due to wear of the bearing parts can be readily taken up by turning the clamping-bolt by means of a wrench or like tool.

It is obvious that instead of the rectangular bearings on the body of the clamping-bolt equivalent means may be provided for enabling the bolt to be turned.

I claim as my invention—

In thill attachments, the combination of the clip or like support for a thill, having the yoke provided with the inward-facing trunnion-sockets, the forked thill end having the threaded sockets for the clamping-bolt, the outward-facing trunnions or bearings, and the clamping-bolt with the right and left hand screw-threads formed on opposite ends and taking into the respective bolt-sockets, all substantially as described.

GEORGE E. HAMLIN.

Witnesses:
W. H. CASTELL,
C. H. WOEKLING.