

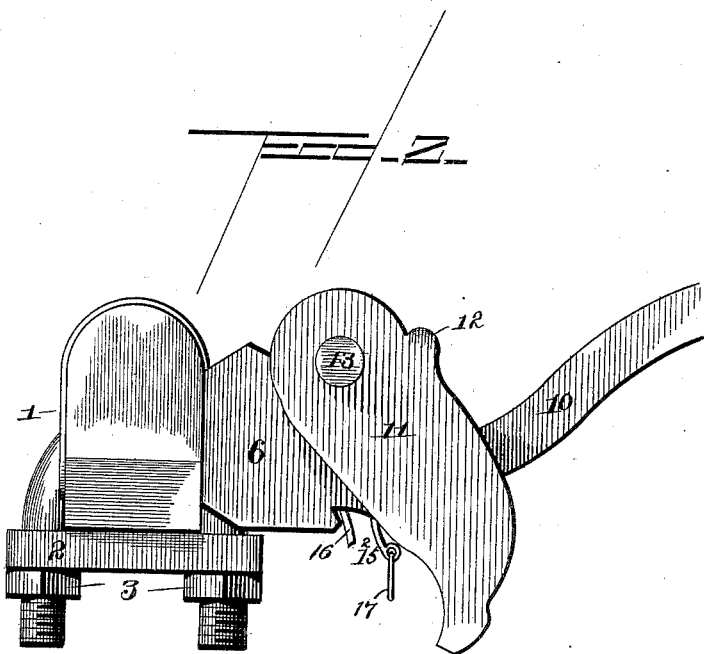
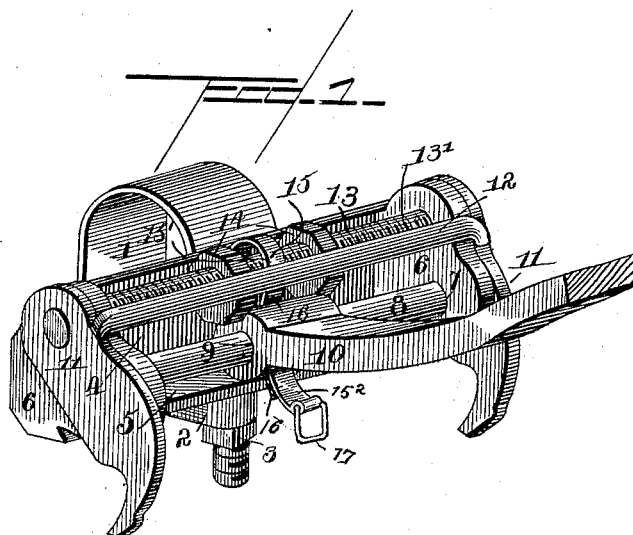
(No Model.)

2 Sheets—Sheet 1.

J. O. KINSEY.
THILL COUPLING.

No. 423,383.

Patented Mar. 11, 1890.



Witnesses

Henry J. Dietrich

Wm. J. Little

Inventor:

Jacob O. Kinsey

By his Attorney,

J. R. Littell

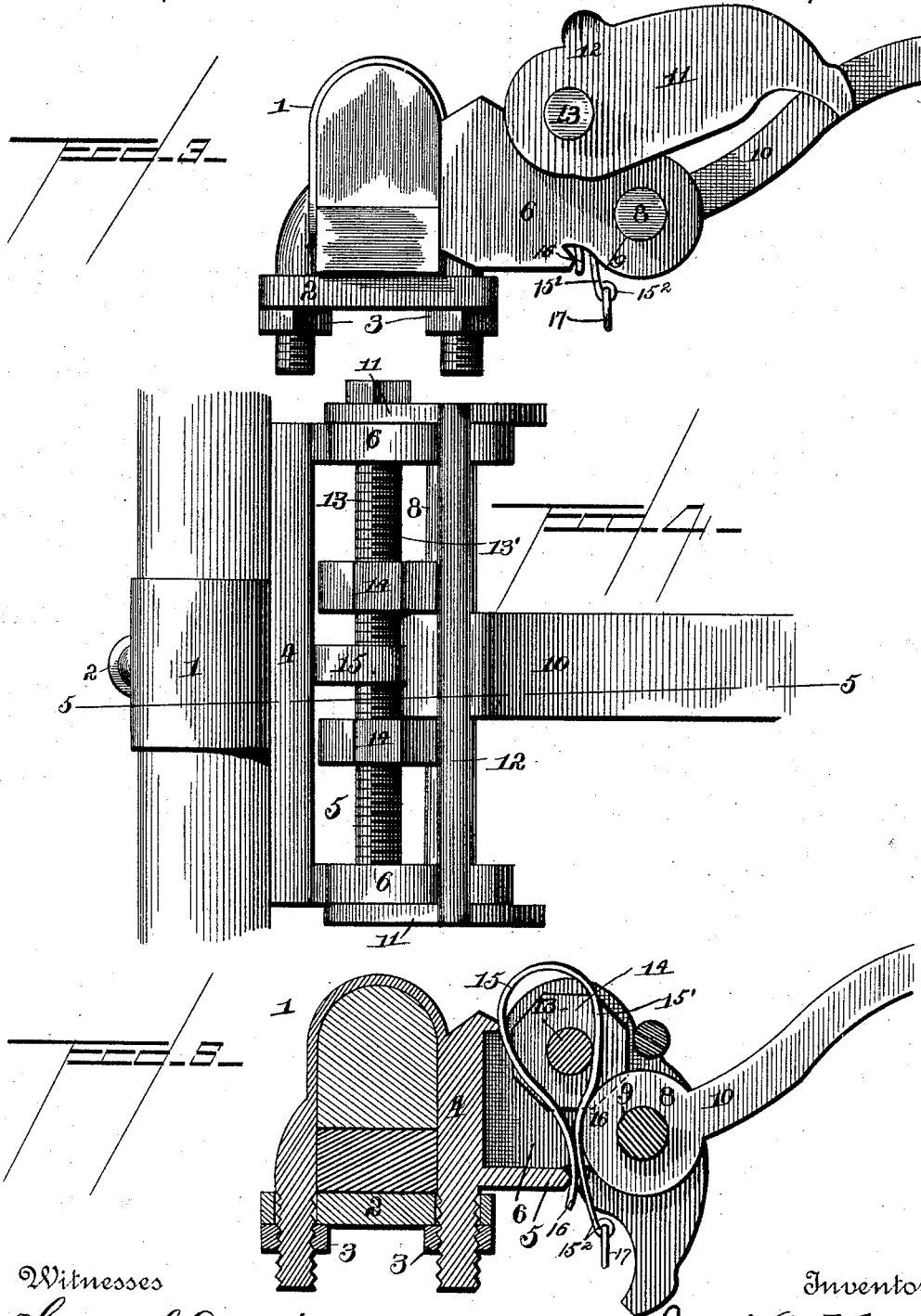
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UNITED STATES PATENT OFFICE.

JACOB O. KINSEY, OF ROANOKE, VIRGINIA, ASSIGNOR TO EVALINE A. KINSEY, OF SAME PLACE, AND CHARLES D. CROMER, OF MONTGOMERY COUNTY, VIRGINIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 423,383, dated March 11, 1890.

Application filed September 25, 1889. Serial No. 325,039. (No model.)

To all whom it may concern:

Be it known that I, JACOB O. KINSEY, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification.

My invention relates to an improved thill-coupling, and has for its object to provide a coupling in which the thill can be quickly connected with and disconnected from the axle-clip, and one in which the pivotal bolt is securely fastened.

Another object is to provide an improved anti-rattling device; and a further object is to provide means whereby the thill-irons can be quickly adjusted laterally.

Other objects of my improvement are to produce a cheaper and better device than those hitherto employed for these purposes, all of which will be fully described hereinafter.

I accomplish these results by means of the construction and arrangement of parts, as illustrated in the drawings, described in the specification, and pointed out in the claims.

In the drawings forming a part of this specification, and in which similar numerals of reference indicate the same or corresponding parts, Figure 1 represents a perspective view of my improved coupling detached from the axle. Fig. 2 is a side view of the same attached to the axle, the safety lugs or guards being turned down. Fig. 3 is a side view, the safety-lugs being turned up. Fig. 4 is a top plan view. Fig. 5 is a vertical section taken on the line 5 5 of Fig. 4.

Referring to the drawings, the numeral 1 indicates the ordinary clip, having its lower ends threaded, 2 the clamping-plate, secured by the nuts 3, in the usual manner. The forward member of the clip 1 is formed with a cross-plate 4, extending to either side of said member and in parallel relation therewith, and at the lower edge of said cross-plate is formed the forwardly-projecting ledge or flange 5, said flange being curved slightly upwardly. At either end of the cross-plate 4 are formed the forwardly-extending ears 6, the forward lower ends of which are apertured at

7 to receive the pivotal bolt 8, which passes through an aperture 9 in the end of the thill-iron 10. The apertures 7 are sufficiently large to permit the pivotal bolt to be quickly inserted therein, and the aperture 9 is sufficiently large to permit the thill-iron sliding freely on the pivotal bolt, said bolt being perfectly smooth, as shown. The pivotal bolt 8 is of such a length that its ends lie flush with the outer sides of the ears 6, and to prevent said bolt becoming misplaced I employ the safety-lugs 11, pivoted to the outer sides of ears at a point to the rear of the pivotal-bolt apertures, and preferably above the same, as shown. The safety-lugs 11 extend entirely over the apertures 7, thereby preventing the bolt slipping out, and said safety-lugs are connected by a cross-bar 12, whereby a convenient grip is afforded and the lugs are made to move in unison. The safety-lugs may be pivoted to the ears in any suitable manner; but in practice I prefer to pivot them by means of a bolt 13, extending through both ears 6, the lugs 11 being rigidly secured to each end of the bolt 13 in any well-known manner. The bolt 13 is preferably provided with a screw-thread 13', and on said thread are two nuts 14, one on either side of the thill-iron, the ends of which project in the path of the nuts 14. With this construction and arrangement of parts the thill-iron can be laterally adjusted to accommodate various-sized shafts and in a quick and convenient manner.

It is not at all essential that the threaded bolt should be connected with the safety-lugs; but in practice I have found such construction desirable and have so illustrated it. To prevent the thill-iron rattling on the pivotal bolt, I employ the stout steel spring 15, said spring being bent upon itself to form the members 15' and 15², the end of the member 15' being curved outwardly at 16, and on the end of the member 15², which is slightly longer than the other member, is a ring or handle 17. The spring 15 is supported on the bolt 13, the end 16 resting on the ledge or flange, the member 15² bearing on the rear end of the thill-iron, and the ring or handle extending below the coupling proper. By means of

said handle the spring can be moved at any time.

From the above description the operation of my device is clear to every one skilled in the art to which it pertains, and it will also be seen that I have produced a device which is quick and safe in operation, one that prevents rattling, and one in which the thill-irons can be quickly and conveniently adjusted laterally to suit the different-sized shafts.

Having thus fully described the construction and combination of the various parts, their operation, and advantages, what I claim as new, and desire to secure by Letters Patent, is—

1. In a thill-coupling, the combination, with an elongated bearing-bar, of a laterally-adjustable thill-iron mounted thereon, a threaded bar disposed parallel with the bearing-bar, and nuts disposed on the threaded bar and adapted to project at either side the thill-iron, substantially as set forth.

2. In a thill-coupling, the combination, with a clip having the cross-plate provided with ears at its ends, of a bolt or bar bearing in perforations in said ears, a thill-iron loosely mounted on the bolt or bar and laterally adjustable thereon, and lugs adapted to retain said bolt or bar in place, substantially as set forth.

3. In a thill-coupling, the combination, with a clip provided with the cross-plate having ears at its ends and a bearing bolt or bar having its ends disposed in said ears, of a spring-held thill-iron embracing said bolt or bar and laterally adjustable thereon, substantially as set forth.

4. In a thill-coupling, the combination, with a clip having the cross-plate secured thereto, said cross-plate having apertured ears at either end, of the thill-iron pivoted on a bolt extending through the lower and forward ends of the ears, a threaded bolt secured between the ears at the rear of the pivotal bolt, nuts carried on said threaded bolt, one on either side of the rear end of the thill-iron, which projects into the path of the nuts, whereby said thill-iron is laterally adjusted, as described.

5. In a thill-coupling, the combination, with a clip 1, of the cross-plate 4, having the apertured ears 6 at either end, the pivotal bolt 8, thill-iron 10, sliding thereon, the rear bolt 13, the safety-lugs 11, secured at either end of the same and adapted to cover the ends of the pivotal bolt, the cross-bar 12, connecting the safety-lugs, and the nuts 14, carried on the rear bolt, substantially as and for the purpose described.

6. In a thill-coupling, the combination of the clip 1, cross-plate 4, ears 6, pivotal bolt 8, thill-iron 10, safety-lugs 11, cross-bar 12, rear threaded bolt 13, the nuts 14, carried thereon, one on either side of the rear end of thill-iron, and the spring 15, supported on the threaded bolt between the nuts, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB O. KINSEY.

Witnesses:

JAMES A. DUPUY,
JAMES D. KIRK.