No. 612,859. Patented Oct. 25, 1898.

R. D. MARSHALL & W. M. CURRY.

THILL COUPLING.

(Application filed May 16, 1898.)

(No Model.)

Fig. 1.

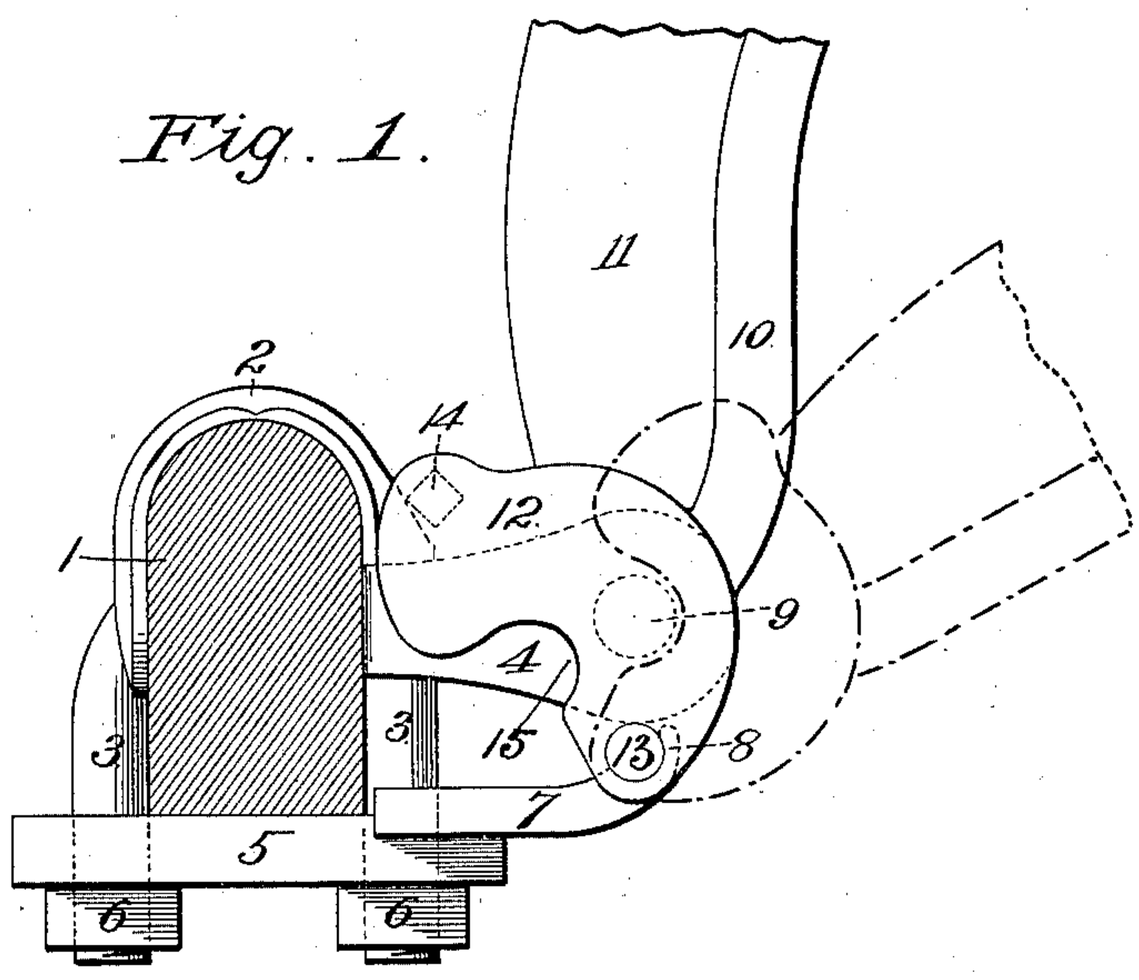


Fig. 2.

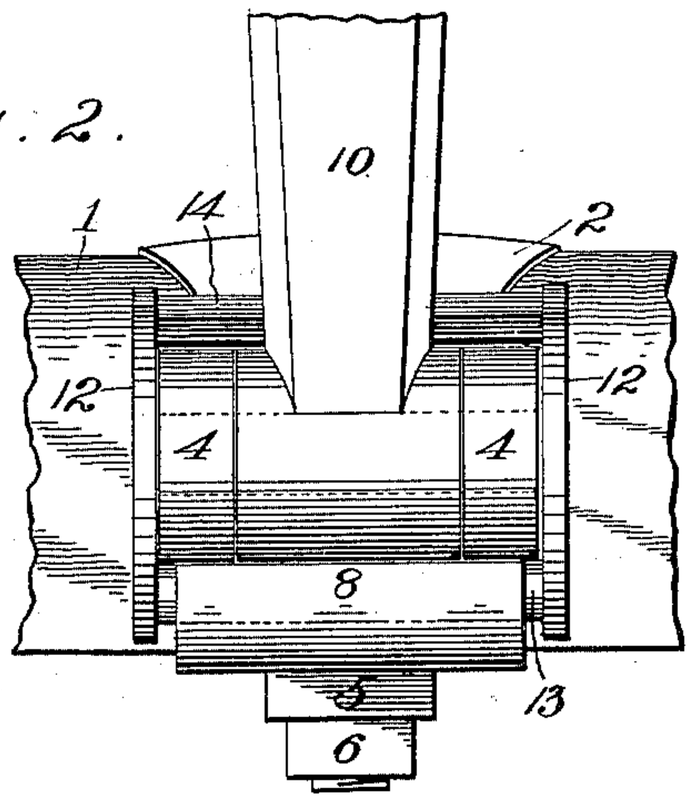


Fig. 3.

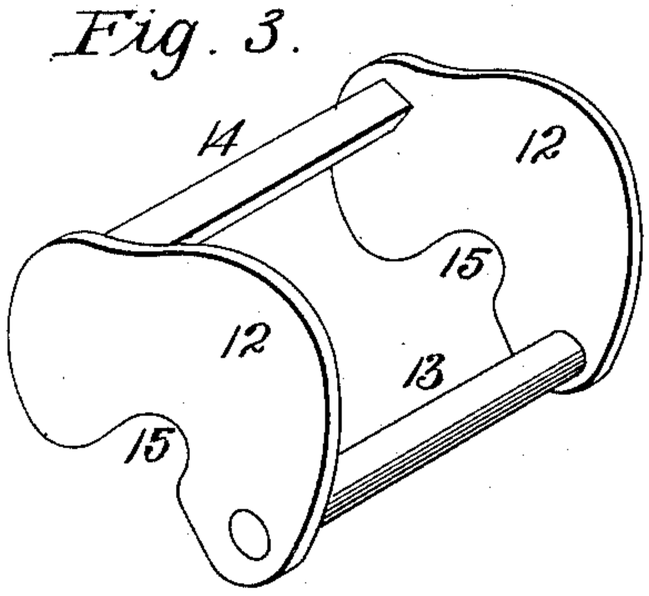
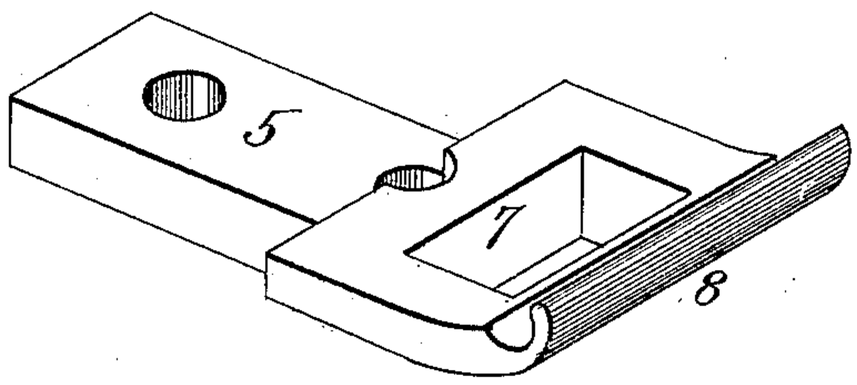


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

RICHARD D. MARSHALL, OF SEDALIA, MISSOURI, AND WILLIAM M. CURRY, OF HEPLER, KANSAS.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 612,859, dated October 25, 1898.

Application filed May 16, 1898. Serial No. 680,863. (No model.)

To all whom it may concern:

Be it known that we, RICHARD D. MARSHALL, of Sedalia, Pettis county, Missouri, and WILLIAM M. CURRY, of Hepler, Crawford county, Kansas, have invented certain new and useful Improvements in Thill-Couplers, of which the following is a full, clear, and exact description.

Our invention relates to thill-couplers; and our object is to produce a device of this character whereby the accidental disconnection of the thills is rendered impossible.

A further object of the invention is to provide a device of this character which is of simple, strong, durable, and inexpensive construction and one by which the thills may be attached to or detached from the vehicle quickly and easily.

With these objects in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed, and in order that the invention may be fully understood we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents in side elevation a thill-coupling applied in operative position. Fig. 2 represents a front view of the same. Fig. 3 is a perspective view of the pivoted keeper detached. Fig. 4 is a perspective view of the base or clamp plate.

In the said drawings, 1 designates the forword axle-bar of a vehicle; 2, a clip of the ordinary U shape applied thereto and provided centrally with depending bolt legs or extensions 3 and with the forwardly-projecting apertured lugs or ears 4. 5 designates the base or clamp plate, which is fitted against the under side of the axle-bar, with the depending bolt-leg projecting through it, nuts 6 being employed to clamp the clip and the plate reliably in position upon the axle in the customary manner. The clamp-plate is provided with a forward extension 7, terminating in an upwardly-disposed hook 8, arranged parallel with the axle about vertically below the apertures of said lugs or ears 4. 9 designates cylindrical pins which fit snugly but removably in the apertures of said lugs or ears, and 10 the thill-iron, having its eye journaled upon said pins between said lugs or ears, as shown clearly in Fig. 2, and secured to said thill-iron in the customary manner is the thill 11.

The pin 9, before referred to, is not provided with a head at either end and is of such length that it does not project outwardly beyond the lugs or ears 4. Consequently to prevent it from working endwise and permitting the thill to become detached from the vehicle accidentally I provide a keeper constructed as follows:

12 designates a pair of plates which constitute the sides of the keeper, and they are connected at their lower ends by a cylindrical cross-rod 13 and at their upper ends by a cross-bar 14. The sides of this keeper are arranged a sufficient distance apart to fit snugly against the external sides of the ears or lugs 4, and when the keeper is in operative position the cross-rod 15 engages and is clamped by the hook 8 up against the lower edges of the ears or lugs 4 with sufficient pressure to render necessary the application of hand or equivalent power to pivotally operate the keeper, which in its operative position overlaps the ends of the pins 9, and consequently prevents the dislocation of the same. To render it impossible for the thills to become detached from the vehicle short of breakage when in their operative position, (shown in full lines,)—that is, when the animal is hitched to the vehicle—said keeper is provided with a cross-bar 14, which prevents the keeper moving or swinging forward far enough to uncover the pin 9 by striking the thill, as will be readily understood by reference to Fig. 1. When the thill is down or in its inoperative position, as shown in dotted lines, it affords no obstruction to the forward movement or swing of the keeper until the approximately semicircular notches 16 in the side arms 12 register with said pin, when the latter can be slipped endwise out of position and the thills removed. The thills can be replaced in operative position as easily. It will thus be seen that when the keeper is once in position all that is necessary in removing the thills is to let them down to their inoperative position, swing the keeper forward, as shown in dotted lines, and slide the pin 9 until it is disengaged

from the eye of the thill-iron. In securing the thill in position this operation is reversed.

Thus it will be seen that we have produced a thill-coupler which embodies the various features of advantage enumerated in the statement of invention, which can be manipulated quickly and easily and which absolutely obviates all chance of the accidental disconnection of the thills from the vehicle, and it is to be understood, of course, that changes which do not involve a departure from the spirit and scope of the invention we may resort to.

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent, is—

A thill-coupling, comprising a clip for engagement with a vehicle-axle, a clamping-plate 5 secured to said clip and against the bottom of the axle, and provided with a hook extension 8, projecting forwardly, a headless pin 9 fitting in the ears of the clip, a thill-iron journaled thereon, and a keeper consisting of a pair of side plates 12, connected at opposite ends by a pivot-rod and a cross-bar, a pivot-rod being journaled in hook extension 8, the plates 12 embracing opposite sides of the clip-ears and opposite ends of the pin 9 to prevent its dislocation, and a bar 14 against the clip above its ears, to properly support the keeper in position.

In testimony whereof we affix our signatures in the presence of two witnesses.

RICHARD D. MARSHALL.
WILLIAM M. CURRY.

Witnesses as to signature of Richard D. Marshall:

E. Y. GINN,
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Witnesses as to signature of William M. Curry:

O. F. LEWIS,
G. E. WHITNAT.