

(No Model)

D. C. KITCHING.
THILL COUPLING.

No. 583,909.

Patented June 8, 1897.

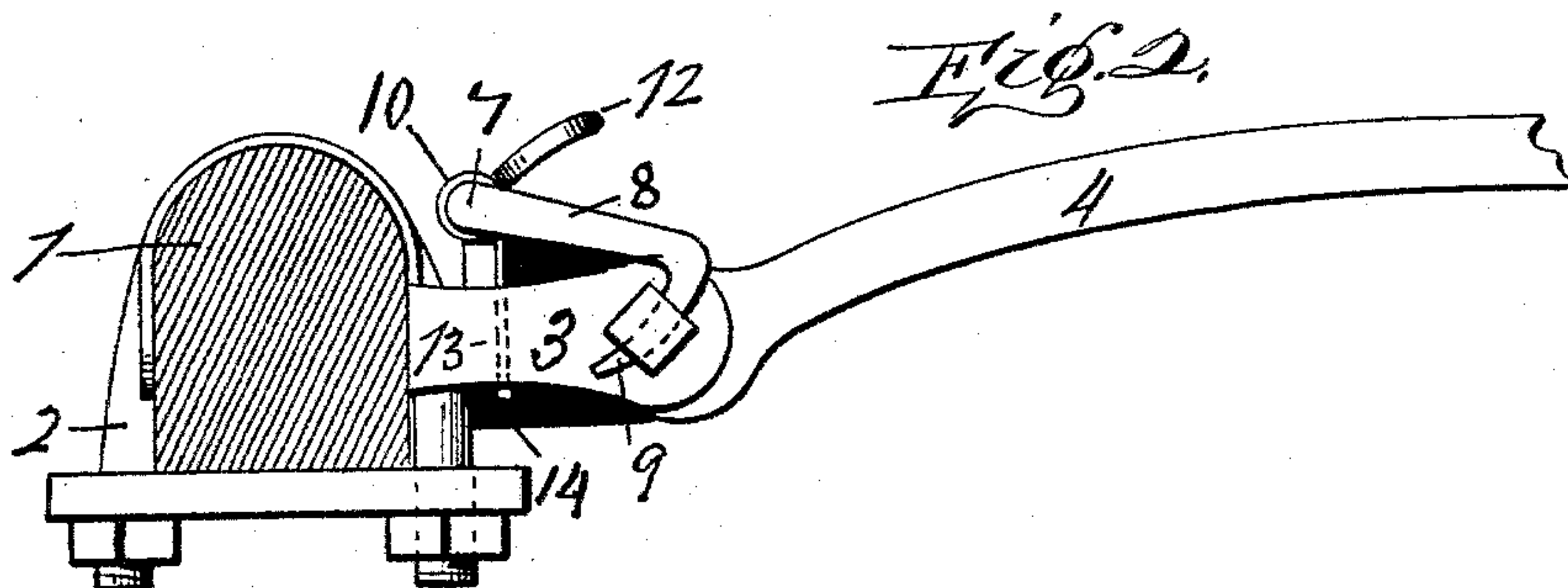
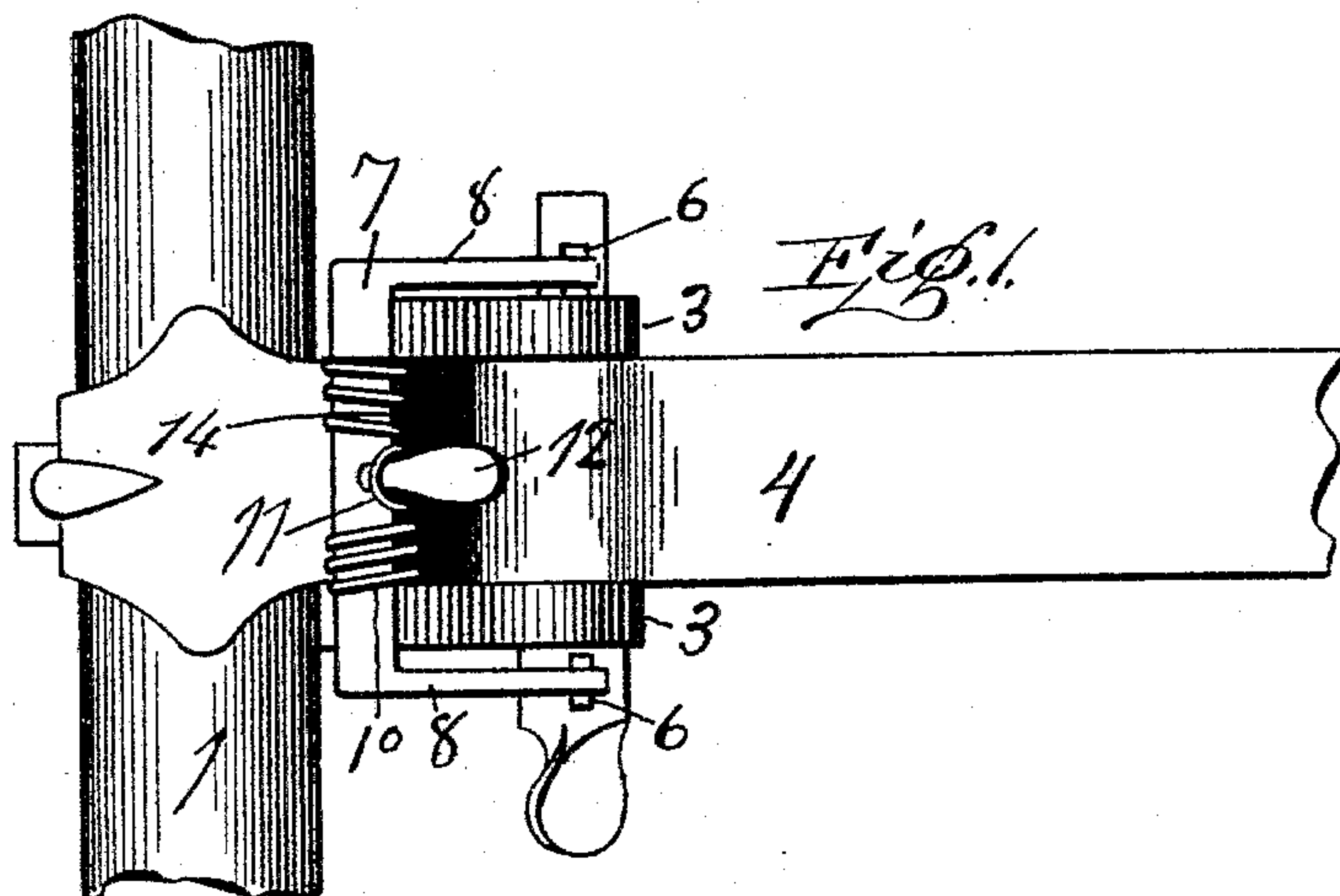
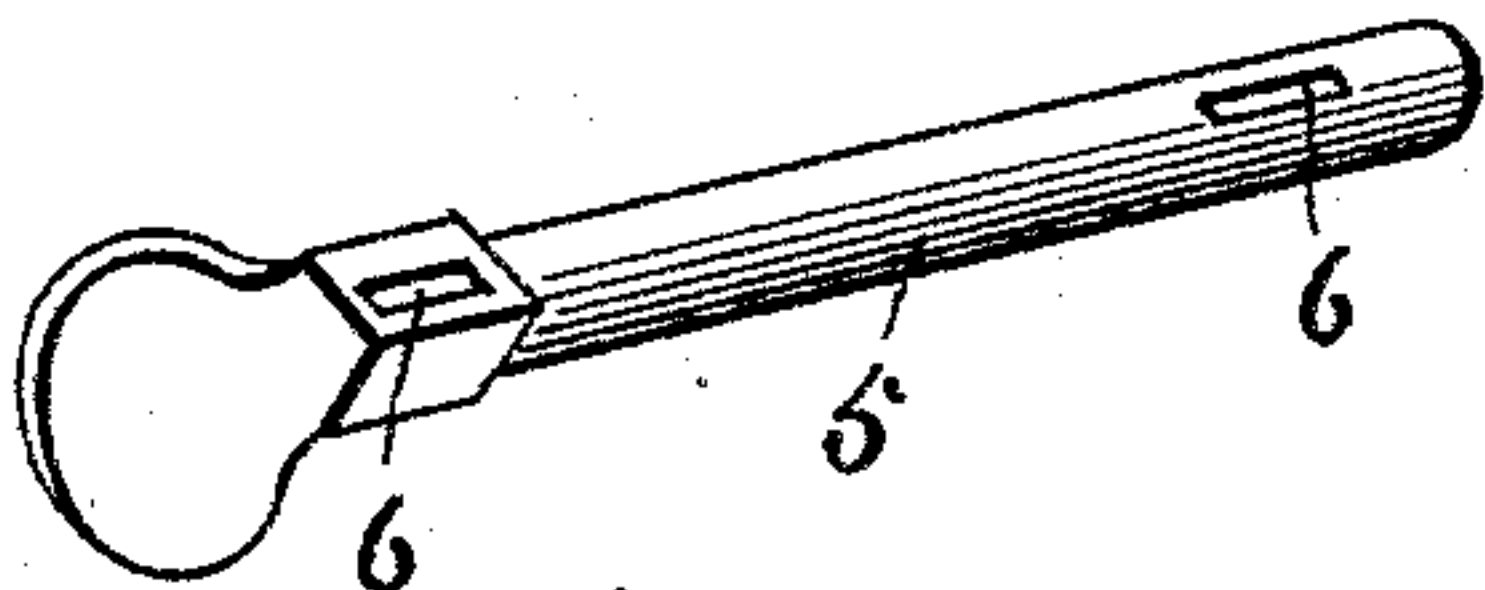


Fig. 3.



Witnesses
J. M. Fowler Jr.
R. C. Rabbitt.

Inventor
D. C. Kitching
By John S. Duffie
"Attorney"

UNITED STATES PATENT OFFICE.

DAVID C. KITCHING, OF GATESVILLE, TEXAS.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 583,909, dated June 8, 1897.

Application filed November 16, 1896. Serial No. 612,274. (No model.)

To all whom it may concern:

Be it known that I, DAVID C. KITCHING, a citizen of the United States, residing at Gatesville, in the county of Coryell and State of Texas, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improvement in thill-couplings; and it consists in the novel construction and arrangement of its parts hereinafter set out in this specification and the claims hereunto attached.

In the accompanying drawings, Figure 1 is a top plan view of my invention. Fig. 2 is an edge view, and Fig. 3 is a perspective view, of the coupling-pin.

My invention is described as follows:

1 is the axle.

2 is the clip, having the usual perforated arms 3.

4 is the perforated rear end of the thill, which fits neatly between the arms 3, the perforations therein being the same size and concentric with the perforations in the arms 3.

5 is the pin that passes through the perforations in the arms 3 and the thill 4, by means of which the said thill is pivoted or hinged between said arms and its front end allowed to work up and down, (vertically,) but on account of the opposite arm 3 it cannot move laterally. The said pin 5 has near each end a rectangular slot 6. These slots when the pin is in place are immediately outside of the arms 3.

Immediately in rear of the rear end of the thill and over the arms 3 is hinged a staple 7. The extreme ends 9 of the arms 8 are turned down at right angles, or a little more than at right angles, to the said arms, forming pins 9, which enter the rectangular slots 6. The said staple is pivoted in place by means of a coil spiral spring 10. The middle part 11 of said spring is first bent around the thumb-lever 12 on the staple, and each end then is coiled around the main bar of the staple, and their ends 13 are then brought down between the inner faces of the arms 3 and the outer faces of the plug 14 and then turned outwardly, which turn holds them tightly in place.

This spiral spring is adjusted with such tautness as to hold the pins 9 in place.

The object of this invention is to prevent the annoyance of nuts coming off, allowing the thill to come out of place to the great danger of the horse and occupants of the vehicle. It is also for the purpose of facilitating the changing of a pair of shafts for a tongue or a tongue for shafts. When I wish to remove the thill, I put my thumb under the thumb-lever 12 and raise it. This raises the pins 9 out of the slots 6, and then the pin 5 can be easily removed.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a vehicle, the combination of the axle 1, clips 2, secured around said axle and having perforated arms 3, extending from the front of said clips; thills 4, having their rear ends perforated and fitting between the arms 3; pins 5, having in each end a slot 6, and fitting in the perforations of the arms 3, and thills 4; U-shaped staples 7, having the arms 8 and curved pins 9; the said curved pins 9, fitting in the slots 6; spiral springs 10, pivoting said staples above the arms 3, and by their tension holding said curved pins in said slots, substantially as shown and described and for the purposes set forth.

2. The combination of the axle 1, clips 2, secured around said axle and having perforated arms 3, extending from the front of said clips; thills 4, having their rear ends perforated and fitting between the arms 3; pins 5, having in each end a slot 6, and fitting in the perforations of the arms 3 and thills 4; U-shaped staples 7, having thumb-levers 12, secured to the upper part of staples 7, arms 8 and pins 9; the said curved pins 9, fitting in the slots 6; spiral springs 10, pivoting said staples above the arms 3, and by their tension holding said curved pins in said slots, substantially as shown and described and for the purposes set forth.

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

DAVID C. KITCHING.

Witnesses:

EARLE STONE,

THOS. B. SAURDER.