

No. 648,504.

Patented May 1, 1900.

G. W. LESTER.  
ANTIRATTLING THILL COUPLING

(Application filed Mar. 8, 1900.)

(No Model.)

Fig. 1.

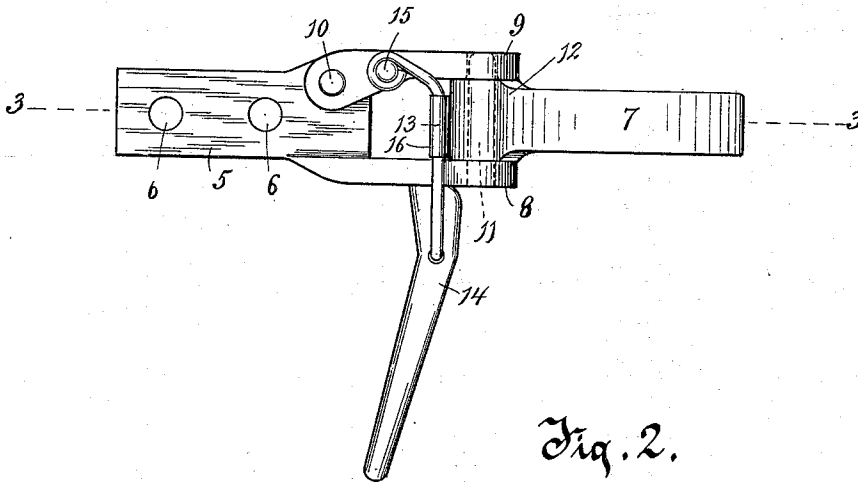


Fig. 2.

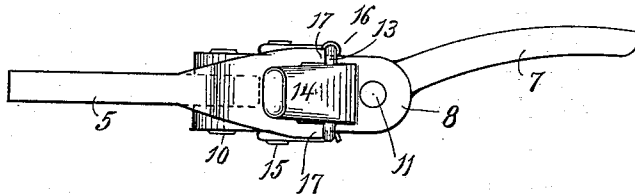
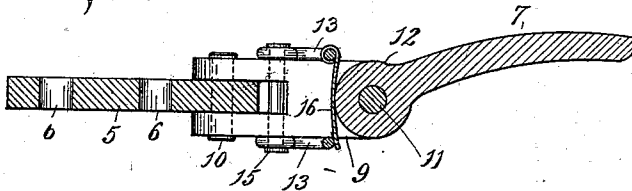


Fig. 3.



Witnesses:

*C. H. Keeney,*  
*Anna V. Faust.*

Inventor:

*George W. Lester*  
*By Benedict Mossell*  
Attorneys.

# UNITED STATES PATENT OFFICE.

GEORGE W. LESTER, OF RACINE, WISCONSIN, ASSIGNOR OF ONE-HALF TO  
EVERETT LESTER, OF CHICAGO, ILLINOIS.

## ANTIRATTLING THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 648,504, dated May 1, 1900.

Application filed March 8, 1900. Serial No. 7,784. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. LESTER, of Racine, in the county of Racine and State of Wisconsin, have invented a new and useful Improvement in Antirattling Thill - Couplings, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

10 The object of my invention is to provide improved means whereby thills may be readily attached to and detached from the running-gear of a vehicle and as incidental thereto to prevent the rattling of the parts.

15 The invention consists of the devices and their combinations, as herein described and claimed, or the equivalents thereof.

In the drawings, Figure 1 is a top plan view of a thill-coupling embodying my invention. 20 Fig. 2 is a side elevation of the same thill-coupling. Fig. 3 is a longitudinal section of the improved thill-coupling on line 3-3 of Fig. 1.

In the drawings, 5 is the socket-plate, preferably made of metal and adapted to be placed 25 against the under side of an axle, particularly a steel axle, and secured thereto by means of a clip passing around the axle and the ends of which extend through apertures 6 6 therefor in the plate. The means suggested for 30 securing the socket-plate to the axle are not shown, but are such as are of common construction and form no part of my invention. The socket-plate is provided at its front 35 extremity with a socket in which the thill-iron 7 is pivoted. The socket in the socket-plate is formed by opposite forwardly-projecting socket-walls 8 9. The wall 8 is rigid to and 40 preferably integral with the body of the plate 5. The socket-wall 9 is hinged to the body of the plate 5 at its rear extremity by a pivot-pin 10, whereby it is adapted to be swung laterally when desired. The socket-wall 8 is provided with a rigid coupling-pin 11, projecting from the inside of the socket-wall 45 across the socket and into an aperture therefor in the socket-wall 9. When the socket-wall 9 is swung outwardly away from the coupling-pin 11, the thill-iron 7, which is provided with a head 12, bored transversely, can 50 be slipped onto or removed from the coupling-pin 11. A pair of these socket-plates be-

ing secured to the axle of the vehicle at suitable distances apart are adapted to take therein the thill-irons on the rear extremity of a pair of thills. These thill-irons may be used 55 also on the cross-bar of a tongue for a vehicle with which a pair of horses are to be employed.

For drawing the swinging socket-wall 9 to place on the end of the coupling-pin 11 and 60 against the thill-iron 7 a link 13, conveniently made of heavy strong wire, is hinged on the socket-wall 9 a little in front of the pivot-pin 10 and extends therefrom across the socket and laterally beyond the socket-plate 8 and is 65 provided with a locking-cam 14, which is conveniently in the form of a lever. The link 13 is conveniently made in U shape, the extremities of the legs being coiled, and thereby pivoted on a pin 15 transversely through the 70 socket-plate 9, and the cross-bar or bend of the link forms a pivot on which the lever-cam 14 is mounted and swings. The cam 14 is advisably somewhat in segmental or curved form at its inner end, and this end or edge is 75 adapted to contact with and bear on the surface of the socket-wall 8, and thereby to draw the socket-wall 9 firmly down against the opposite side of the thill-iron 7. By swinging the cam 14 so as to disengage it from the 80 socket-wall 8 the socket-wall 9 is thereby released and can be swung away from the thill-iron and the coupling-pin 11 sufficiently to permit of the removal of the thill-iron 7.

To prevent rattling of the parts, a substantially-flat steel spring 16 is coiled at one end 85 about and is thereby hinged on one leg of the link 13 and extends across the socket-aperture downwardly and rests at its other extremity against the other leg of the link 90 13. The link 13 is so constructed and disposed that the spring 16 thus mounted on one leg of the link and bearing against the other leg of the link bears also medially against the rear side of the head 12 of the thill-iron 95 7 when the thill-iron is in position in the socket-plate, as shown in Figs. 1 and 3. This construction and disposition of the parts prevent rattling thereof when in use. Shoulders 17 17 on the upper and lower edge, 100 respectively, of the socket-wall 8 are adapted to receive the legs of the link 13 against them

and prevent the free extremity of the link from swinging rearwardly beyond these shoulders.

What I claim as my invention is—

5 1. In combination, a socket-plate provided with a rigid and a hinged socket-wall opposite each other, one of the socket-walls being provided with a coupling-pin projecting there-  
10 from across the socket into the opposite socket-wall, a link pivoted to one of the socket-walls and extending across the socket and beyond the opposite socket-wall, a cam pivoted on the free extremity of the link adapted to bear against the adjacent socket-wall and  
15 lock the swinging socket-wall releasably in place, and a thill-iron hinged between the socket-walls of the coupling-pin.

2. In combination, a socket-plate provided with a rigid and a hinged socket-wall oppo-  
20 site each other one of the socket-walls being provided with a coupling-pin projecting there- from across the socket into the opposite socket-wall, a link pivoted to one of the socket-walls and extending across the socket and be-  
25 yond the opposite socket-wall, shoulders on the socket-wall beyond which wall the link extends said shoulders being adapted to receive against them the legs of said link and prevent it from swinging beyond them, a cam  
30 pivoted on the free extremity of the link adapted to bear against the adjacent socket-

wall and lock the swinging socket-wall releasably in place, and a thill-iron hinged between the socket-walls, on the coupling-pin.

3. In combination, a socket-plate provided 35 with a rigid and a hinged socket-wall opposite each other, one of the socket-walls being provided with a coupling-pin projecting there- from across the socket into the opposite  
40 socket-wall, a link pivoted to one of the socket-walls and extending across the socket and beyond the opposite socket-wall, shoulders on the socket-wall beyond which wall the link extends, said shoulders being adapted to receive against them the legs of said link and  
45 prevent it from swinging beyond them, a cam pivoted on the free extremity of the link adapted to bear against the adjacent socket-wall and lock the swinging socket-wall releasably in place, a thill-iron hinged between  
50 the socket-walls on the coupling-pin, and a spring secured to one leg of said link and bearing against the other leg of the link and medially bearing oppositely against the thill-iron preventing rattling of the parts. 55

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

GEORGE W. LESTER.

Witnesses:

W. J. WEINECK,  
WM. HENRY MILLER.