

No. 609,510.

Patented Aug. 23, 1898.

M. KNUPP.
THILL COUPLING.

(Application filed Aug. 25, 1897.)

(No Model.)

Fig. 1.

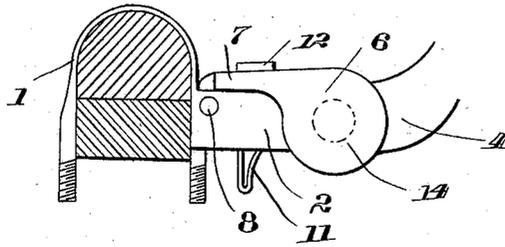


Fig. 3

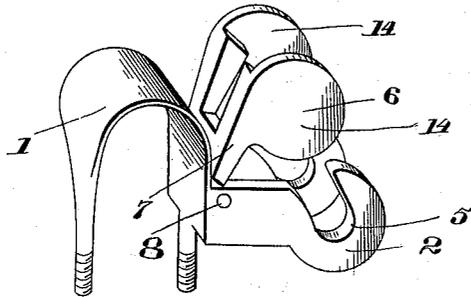
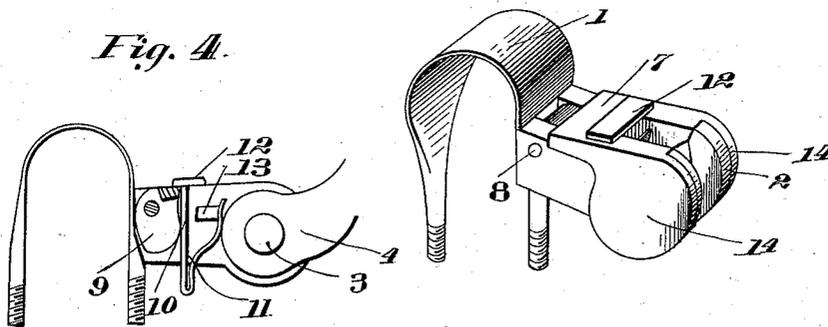


Fig. 2.

Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

MICHAEL KNUPP, OF TOLEDO, ILLINOIS, ASSIGNOR OF ONE-HALF TO S. S. FREDERICK, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 609,510, dated August 23, 1898.

Application filed August 25, 1897. Serial No. 649,496. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL KNUPP, of Toledo, in the county of Cumberland and State of Illinois, 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 relates to an improvement in antirattling thill-couplings, and has for its object the production of such a coupling which will permit the ready coupling or uncoupling of the thill and which will prevent the casual displacement of the same and will prevent vibration of the thill within the coupling.

To the accomplishment of this object my invention consists in providing a thill-coupling with a pair of hooks designed to constitute a socket or bearing for the trunnions carried upon the thill-head and a hinge-cap designed to be turned down upon the hook in a manner to absolutely prevent the casual displacement of the thill-head, and, further, in the provision of a spring of novel form designed to retain the cap in its proper position and to prevent the vibration of the head within the coupling.

Referring to the drawings, Figure 1 is a general view showing the application of my thill-coupling. Fig. 2 is a perspective view of the coupling detached. Fig. 3 is a similar view showing the hinge-cap thrown back to permit the removal of the thill-head, and Fig. 4 is a central longitudinal section taken at one side of the head.

Referring to the numerals on the drawings, 1 indicates a suitable strap designed to secure the coupling upon the axle of a vehicle and from which project a pair of parallel hooks 2, opening upwardly and designed, respectively, to receive the trunnions 3, projecting from the opposite sides of the thill-head 4, located between the hooks and carried by a socket 5, secured to the end of the thill.

6 indicates what I will term the "hinge-cap," provided with a tailpiece 7, hinged, as by a pintle 8, between the hooks adjacent to the strap 1. The cap-piece corresponds in width with the distance between the outer edges of the hooks and is designed when

turned down thereupon to effectually close the same for the purpose of preventing the trunnions from passing over the hooks, and thereby causing the uncoupling of the thills. The cap is bifurcated, as illustrated, and is provided with a depending spring-guard 9, against which the standard 10 of a spring 11 is designed to bear. The spring may be formed in any suitable manner; but, as illustrated, the standard 10 is preferably provided with a head 12, and the spring 11 is bent upwardly from the bottom of the standard, thence outwardly and in parallel relation with said standard, and is provided upon its inner side with a block 13, designed to limit the movement of the spring proper in the direction of the standard 10.

It will be observed that the head 12 will rest upon the cap and that the spring proper will bear against the thill-head and in this manner prevent vibration of the latter, as the spring-guard upon the cap will prevent yielding of the standard and will in this manner present a definite resistance to the movement of the spring beyond a predetermined limit.

14 14 indicate a pair of guard-disks extending from the front end of the cap and designed to lie flat against the outer sides of the hooks to completely conceal the openings therein and the trunnions carried thereby, the entire coupling when the cap is turned down presenting a neat compact appearance.

It will be observed that when it is desired to uncouple the thill it is simply necessary to swing the cap back upon its pivot, opening the hooks and simultaneously removing the spring from contact with the thill-head, and the latter may then be removed in a manner which will appear obvious.

While the embodiment of my invention as illustrated and described appears at this time to be preferable, I do not desire to limit myself to such structural details, but reserve the right to change, modify, or vary them at will within the scope of my invention.

It will be further observed that by the construction hereinbefore described we have full action for both the tongue and the thills, and the antirattler holds the cap down. It will also be seen that there is plenty of room for

the cap and it does not come in contact with the antirattler. The lower part of the front piece extends down, so that it may be struck by the hammer, thus loosening the antirattler.

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

1. In a thill-coupling, the combination with a pair of upwardly-opening hooks designed for the reception of a thill-head provided with trunnions, of a cap comprising a tailpiece pivoted between the hooks, guard-disks projecting from the front end of the cap, and designed to cover the outer sides of the hooks, a spring-guard, and a spring provided with a head designed to rest upon the top of the cap and having a standard passing between the hooks and braced by the spring-guard and having its extremity bent upwardly from the bottom of the standard and designed to bear against the thill-head, substantially as specified.

2. In a thill-coupling, the combination with a pair of upwardly-opening hooks, and a thill-head provided with trunnions carrying said hooks, of a cap comprising a tailpiece pivoted between the hooks, and guard-disks projecting from its front end and designed to cover the outer side of the hooks, a spring-guard carried by the cap, a spring comprising a standard braced by the spring-guard, an upturned end portion in contact with the thill-head, a head upon the upper extremity of the standard designed to rest upon the top of the cap, and a block secured upon the opposite extremity of the spring and designed to limit the movement thereof by coming in contact with the standard, substantially as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

MICHAEL KNUPP.

Witnesses:

SAMUEL S. FREDERICK,
WM. KNUPP.