

(No Model.)

R. C. SIMMONS.
CAR COUPLING.

No. 573,546.

Patented Dec. 22, 1896.

Fig. 1.

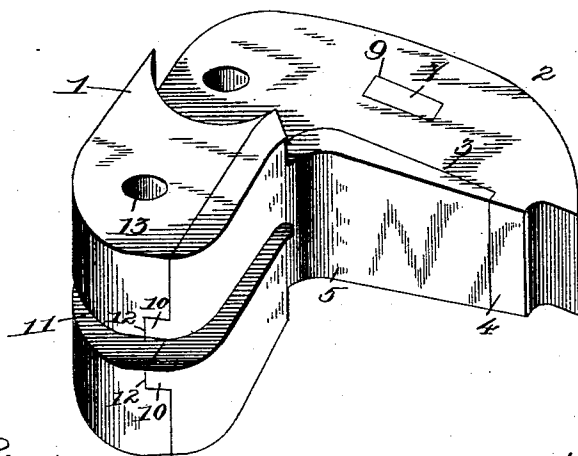


Fig. 2.

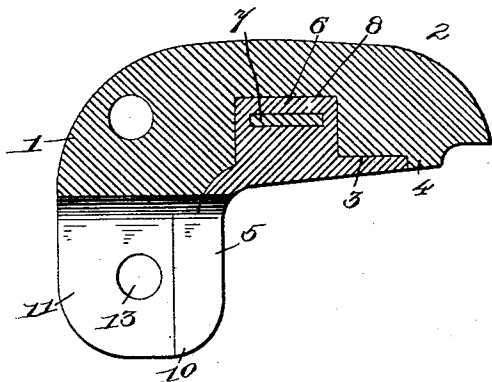


Fig. 3.

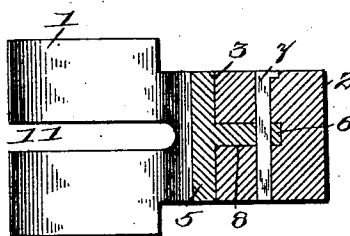


Fig. 5.

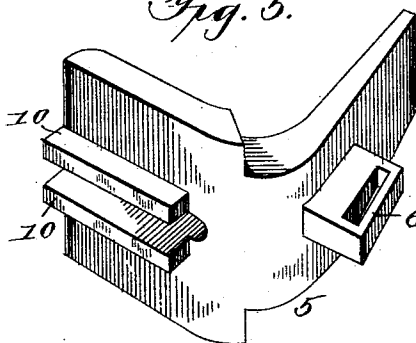
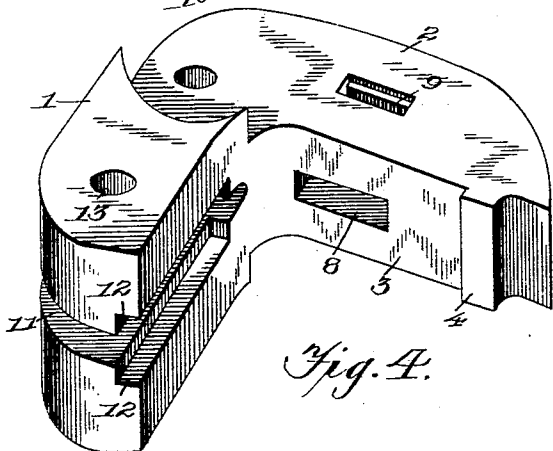


Fig. 4.



Inventor
Ross C. Simmons,

Witnesses

T. L. Rockwell

J. P. Riley

By *W. S.* Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ROSS C. SIMMONS, OF EAST TAWAS, MICHIGAN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 573,546, dated December 22, 1896.

Application filed May 22, 1896. Serial No. 592,596. (No model.)

To all whom it may concern:

Be it known that I, ROSS C. SIMMONS, a citizen of the United States, residing at East Tawas, in the county of Iosco and State of Michigan, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to improve the construction of car-couplings, more especially the knuckles thereof, and to enable the latter, when worn, to be renewed to avoid discarding an entire knuckle, and thereby lessen the expense necessary for maintaining car-couplings in condition for use.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a knuckle constructed in accordance with this invention. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a perspective view of the knuckle, the shoe being removed. Fig. 5 is a detail perspective view of the shoe.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a knuckle having an arm 2 and designed to be constructed of the form and proportion that will adapt it to the ordinary draw-head of the Janney type. The knuckle is provided at its inner engaging face with a seat 3, formed by recessing or reducing it, and having a vertical shoulder 4 at the rear or inner end of the seat. The recess or seat 3 receives a shoe 5, which is substantially L-shaped, and which forms an inner bearing or engaging face for the knuckle and is adapted to receive the wear. The shoe, which may be constructed of any suitable metal, completes the inner engaging surface of the knuckle and is detachably secured in place by means of a transversely-disposed tongue 6, carried by it, and a removable key 7, which is mounted on the arm of the knuckle. The tongue, which extends from the inner face of the shoe, is provided with an opening and is received in a recess 8, and the opening

of the tongue 6 registers with the key-opening 9 of the knuckle, whereby, when the key 7 is in place, the shoe will be firmly locked in position.

The front or outer portion of the shoe is supported by a pair of parallel lugs 10, located at the top and bottom of the link-opening 11 of the knuckle and fitting in corresponding recesses 12 of the latter. The shoe is provided with a slot or opening registering with the link-opening of the knuckle, and the lugs, which are interlocked with the latter, prevent the shoe from moving vertically and straining or twisting the tongue.

The ordinary knuckle can be used until its engaging portion is worn away to the coupling-pin perforation, and then the entire knuckle has to be discarded; but by employing removable shoes the knuckle, when worn, may be readily renewed by removing a worn shoe and applying a new one, and the entire knuckle need never be discarded, as it cannot become worn to its coupling-pin perforation 13.

It will be seen that the shoe is simple and comparatively inexpensive in construction, that it is adapted to receive the wear, and that, when worn, it may be quickly removed to enable a new shoe to be supplied.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a car-coupling, a knuckle provided at its inner face with a removable L-shaped shoe extending over its entire engaging portion, arranged to receive the wear and adapted to be readily detached when worn and replaced by a new one, substantially as described.

2. In a car-coupling, the combination of a knuckle provided at its inner engaging face with a seat, a substantially L-shaped shoe arranged in the seat of the knuckle and completing the inner face thereof, and means for detachably securing the shoe to the knuckle, substantially as and for the purpose described.

3. In a car-coupling, the combination of a knuckle provided at its engaging face with a seat and having notches above and below its link-opening, said knuckle being provided in

its arm with a vertical key-opening and having a horizontal recess communicating with the same, a substantially L-shaped key arranged in the seat and provided at its front
5 with lugs fitting in the recess at the link-opening of the knuckle, a transversely-disposed tongue extending from the shoe, arranged in the recess of the arm of the knuckle and provided with an opening registering with the
10 key-opening, and a removable key arranged

in the key-opening and engaging the opening of the tongue, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
15 the presence of two witnesses.

ROSS C. SIMMONS.

Witnesses:

J. S. MCGUIRE,

ALBERT ASH.