(No Model.)

J. E. TYLEE.

CLIP COUPLING FOR VEHICLES.

No. 345,460. Patented July 13, 1886.

Fig. 1.

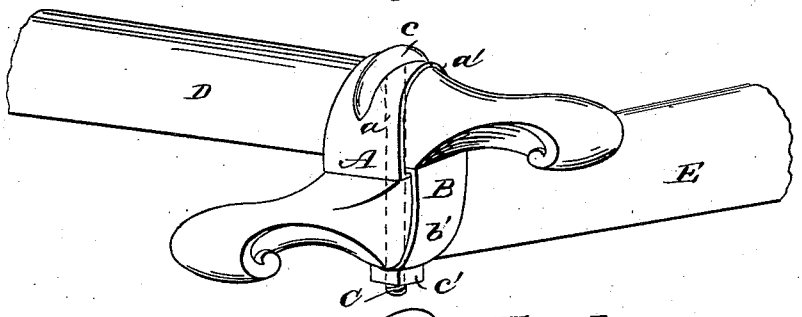


Fig. 2.

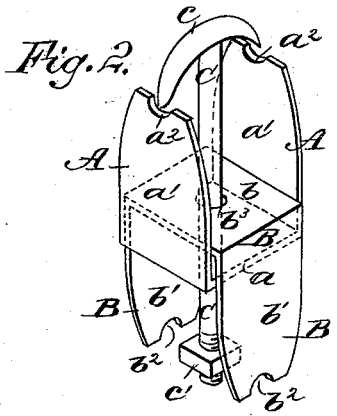


Fig. 4.

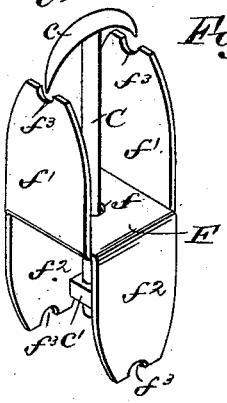


Fig. 3.

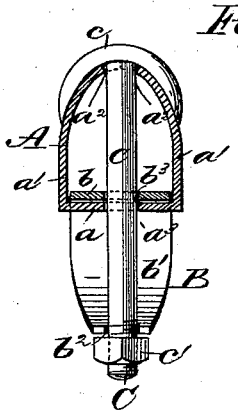


Fig. 5.

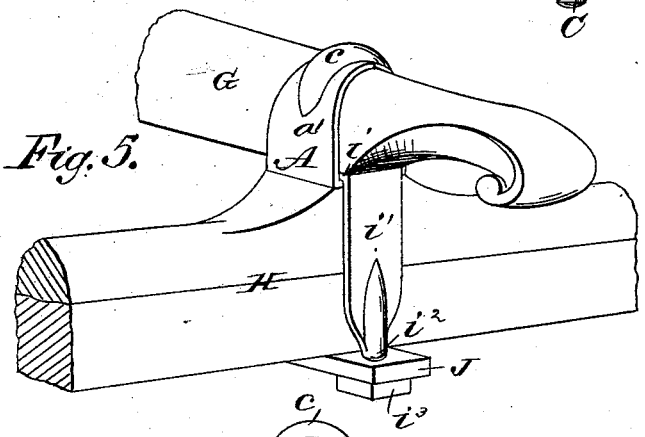
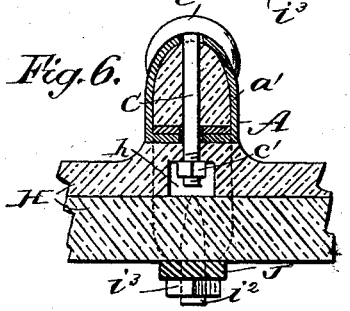


Fig. 6.



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JAMES ELLIS TYLEE, OF ASHLAND, NEBRASKA, ASSIGNOR TO HIMSELF, BENJAMIN S. CLARKE, AND JOHN C. TYLEE, ALL OF SAME PLACE.

CLIP-COUPLING FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 345,460, dated July 13, 1886.

Application filed June 2, 1886. Serial No. 203,918. (No model.)

To all whom it may concern:

Be it known that I, JAMES ELLIS TYLEE, of Ashland, in the county of Saunders and State of Nebraska, have invented a new and Improved Clip-Coupling, of which the following is a full, clear, and exact description.

My invention relates to clip devices of that class adapted more especially for coupling parts of the running-gear of vehicles, but applicable also to join parts of other structures, and the invention has for its object to provide a simple, inexpensive, light, and substantial clip-coupling of this character.

The invention consists in certain novel features of construction and combinations of parts of the clip-coupling, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the ends of a head-block and side bar joined by my improved double clip coupling. Fig. 2 is a perspective view of the double-clip coupling as it appears prior to bending its flexible side plates and securing them by the clip-bolt. Fig. 3 is a sectional elevation of the double-clip coupling as when in use. Fig. 4 is a perspective view of a modified form of the coupling or with its body portion made of one piece of metal. Fig. 5 is a perspective view showing a side bar connected directly to a vehicle-axle by a modified form of clip-coupling, and Fig. 6 is a vertical sectional elevation of the parts shown in Fig. 5.

The clip-coupling, as shown in Figs. 1, 2, and 3, is made with two bent plates, A B, of suitable metal, having respectively the cross-pieces *a b* and opposite side parts, *a' a' b' b'*, the ends of which parts are provided, respectively, with semicircular notches a^2 b^2. The cross-pieces *a b* of the clip-plates A B are centrally perforated, as at a^3 b^3, respectively, to receive the clip-bolt C, which has a curved head, *c*, and at its screw-threaded end is fitted with a nut, *c'*.

In using this coupling to clip a wagon side bar, D, to a head-block, E, the plates A B will be interlocked, as in Fig. 2, and the side bar will be placed between the side parts, *a' a'*, of plate A upon the cross-piece *b* of plate B. The head-block E then will be placed between the side parts, *b' b'*, of plate B, and against the cross-piece *a* of plate A, and the bolt C then will be passed through holes bored through the side bar and head-block and through the holes a^3 b^3 in the cross-pieces of the clip-plates, and the side pieces, *a' a' b' b'*, of the plates A B then will be bent inward to conform to the surfaces of the side bar and head-block, respectively, the end notches, a^2 a^2 b^2 b^2, of the plates A B then inclosing the bolt C immediately beneath its head *c* and inside of its nut *c'*, and when the nut is tightened the bolt-head *c* will hold the sides of plate A to the side bar, D, and the nut *c'* will hold the sides of plate B to the head-block, and bind the side bar and head-block securely together, as shown in Fig. 1.

It is obvious that this coupling is very light and strong, and has a neat appearance, and prevents splitting of the side bar or head-block.

Fig. 4 shows how the body of the clip-coupling may be made of a single piece, F, of metal perforated at the center, at *f*, to receive the clip-bolt, and having two opposite pairs of side pieces, *f' f'*, f^2 f^2, each pair bent in opposite direction from the central perforated part of the plate, and the ends of the side pieces have semicircular notches f^3, which engage the clip-bolt substantially as do the notches a^2 b^2 of the coupling-plates A B, and as above described.

Figs. 5 and 6 illustrate how a side bar, G, may be clipped directly to an axle, H, by means of a coupling-plate, A, a bolt, C, having a head, *c*, and nut *c'*, and a clip-plate, I, the cross-piece *i* of which overlaps the cross-piece *a* of plate A, and the side plates, *i'*, of which have bolt ends i^2, on which a bottom clip-bar, J, of ordinary form, is held across the bottom of the axle, by means of nuts i^3 on the bolt ends. In this case the point of the clip-bolt C and the nut *c'* of said bolt are inclosed in a recess, *h*, made in the under side of the wooden part of the axle above the clip-bar J, as in Fig. 6.

It is evident that a single clip-plate, A or B, may be used with the clip-bolt C, having a

cross-head, *c*, and a nut, *c'*, to couple together joined parts of vehicle running-gear and other structures. The bolt cross-head *c* in every instance draws the opposite side parts of the clip-plate closely to the object clipped when the nut of the clip-bolt is tightened.

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

1. The combination, in a clip-coupling, of a clip-plate, as A, having a perforated cross-piece, *a*, and side parts, *a' a'*, and a bolt, C, having a head, *c*, shaped to draw the sides of plate A to the object clipped when the bolt is tightened, substantially as described, for the puposes set forth.

2. The combination, in a clip-coupling, of a clip-plate, as A, having a perforated cross-piece, *a*, and side parts, *a' a'*, provided with end notches, a^2, and a bolt, C, having a head, *c*, shaped to draw the sides of plate A to the object clipped and to engage the notches a^2 with the bolt when the bolt is tightened, substantially as herein set forth.

3. A clip-coupling comprising a plate or plates, provided with side parts extending from the perforated center of the coupling, and opposite pairs of said plates extending opposite ways about at right angles with the center of the coupling, and a bolt passed through the perforated center of the coupling and provided at one end with a head which draws one pair of the side parts or plates toward each other and to one of two clipped objects, and a nut or equivalent device which draws the other pair of side parts or plates to the other of two clipped objects, substantially as described, for the purposes set forth.

4. The combination, in a clip-coupling and with two parts to be joined as a wagon side bar, D, and head-block E, of two U-shaped clip-plates, as A B, interlocked with each other at their cross-pieces *a b*, which are perforated at a^3 b^3, and a bolt, C, passed through the parts D E and holes a^3 b^3, and said bolt C having a head, *c*, drawing the sides of plate A to the side bar, D, and a nut, *c'*, on bolt C drawing the side parts of plate B to the head-block E, substantially as described, for the purposes set forth.

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