(No Model.)

R. MORRIS.

CAR COUPLING.

No. 300,789. Patented June 24, 1884.

Fig. 1.

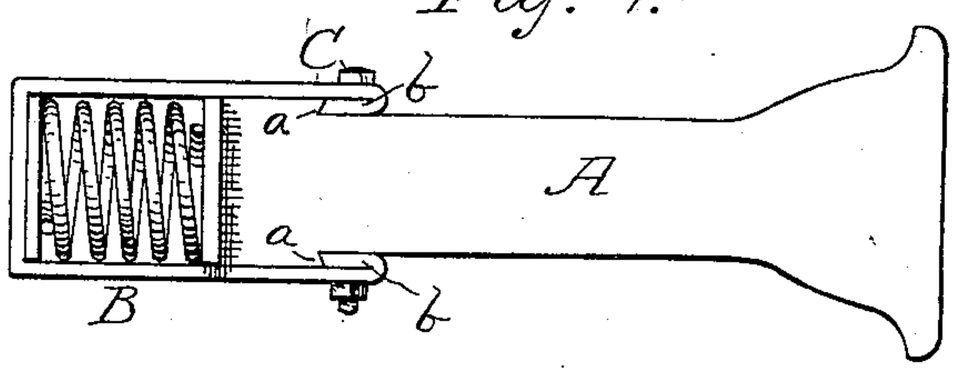


Fig. 2.

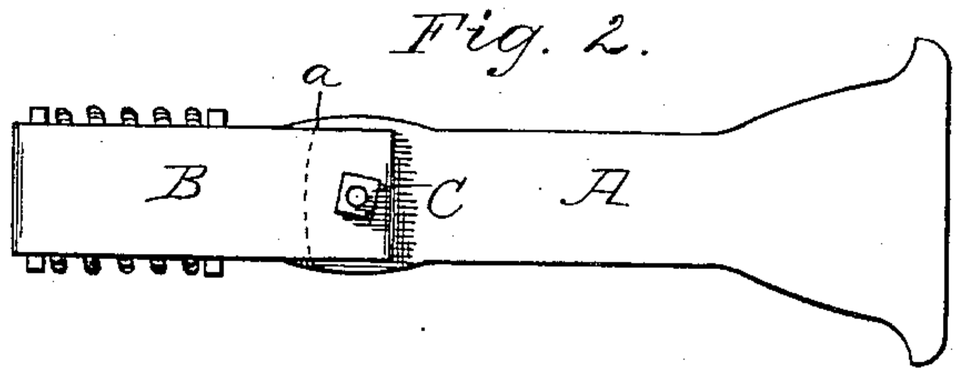


Fig. 3.

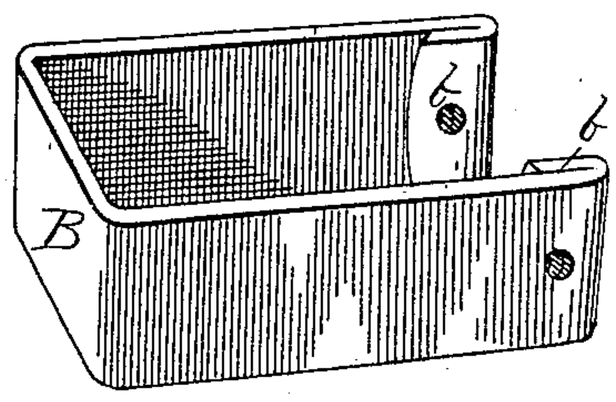


Fig. 4.

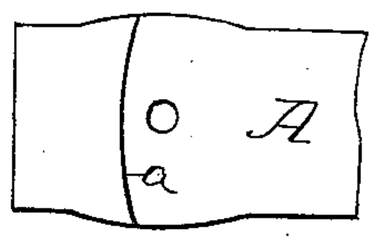
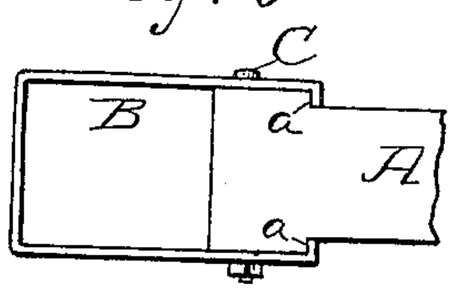


Fig. 5



WITNESSES:

John E. Povey

E. W. Schirach

Robert Morris

INVENTOR

BY Jarvis H. Coyne

ATTORNEY

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ROBERT MORRIS, OF LA CROSSE, WISCONSIN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 300,789, dated June 24, 1884.

Application filed May 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, ROBERT MORRIS, of La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Stirrups for the Cushions of Draw-Bars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to that part of a car-coupler known as the "stirrup," and to the means for and manner of securing it to the draw-bar.

In the drawings, Figure 1 is a side elevation of a draw-bar, showing my improved stirrup as applied. Fig. 2 is a plan view of the same. Fig. 3 is a perspective view of the stirrup-strap. Fig. 4 is a detail view showing the end of the draw-bar to which the stirrup-strap is attached, and Fig. 5 shows the construction of the common draw-bar and stirrup now in use.

Reference being had to the drawings, A represents a draw-bar and head of the usual construction, having the vertical dimensions of the end made greater, so as to form shoulders *a a* on the upper and under surfaces, against which the ends of the stirrup-strap B bear when in position, so as to form a greater resistance to the strain to which said stirrup is subjected when in use.

In the old form of freight-car draw-bars in current use, and as shown in Fig. 5, the shoulders *a a* are at right angles to the upper and lower surfaces, and extend laterally in a straight line from side to side; and the strap B has its ends bent at right angles to the longitudinal arms of the stirrup to lap over the shoulders *a*, and a bolt, C, properly secured by a nut, passes through the strap and through the increased vertical dimensions of the contiguous end of the draw-bar, as shown. Now, when it is considered what a great strain the stirrup is subjected to, it will be obvious that most of the strain must be borne by that portion of the bolt C passing through the strap. The bolt will therefore, when in constant use or subjected to a great strain, be cut or broken off, thus throwing all the strain on the ends of the stirrup, which, not being able to stand it, are pulled off the draw-bar. In order to avoid the objections thus set forth, I double or bend back the ends of the strap B onto its length to form hooks *b b*, the ends of which bear against the shoulders *a a*. Then I secure said strap in position by passing a bolt, C, laterally through the two thicknesses of the strap made by the hook, and through the contiguous vertical portion of the bar A, thus giving that portion of the bolt passing through the strap a greater resisting surface than can be had by the common stirrup and draw-bar hereinbefore explained, and relieving considerable of the strain from the same by having the ends of the strap bear against shoulders *a a*.

If desired, the shoulders *a a* may be inversely beveled, as shown in the drawings, and the ends of the straps beveled the reverse of that of the shoulders. This construction would help resist the tendency of the straps to slip off the said shoulders. As there is usually a slight oscillation of the draw-bars, especially when the cars to which they are attached are turning curves, I give the shoulders *a* a slight inverse curve transversely from side to side of the said bar, and curve the extremities of the hooks the obverse of that of the shoulders. This construction permits such oscillation without injury to the bolt C. In order to give additional strength to that part of the draw-bar through which the bolt passes, I bulge or curve outward the vertical sides thereof adjacent to said bolt, thus increasing the lateral dimensions at that point.

While I prefer to have the shoulders *a* inversely beveled and curved transversely, and to have a corresponding conformation of the extremities of the hooked part of the stirrup-strap, yet such construction is not absolutely necessary, for my improved stirrup having the hooked ends can be used with the common form of draw-bar (shown in Fig. 5) to great advantage by placing the bolt C through the hooked ends, instead of through the length, of said stirrup.

What I claim as new is—

1. A stirrup-strap for the cushions of draw-bars, consisting of a U-shaped strap having its ends doubled inward onto its length to

form hooks, the extremities of which are intended to bear against the shoulders formed by stepping or increasing the vertical dimensions of the contiguous end of the draw-bar.

2. The combination, with a draw-bar having the vertical dimensions of its end increased to form shoulders, as shown, of a U-shaped stirrup-strap having the ends thereof doubled inward onto its length to form hooks, the extremities of which bear against said shoulders, and a bolt for securing said stirrup in position, said bolt passing through suitable holes suitably aligned in the hooks and the draw-bar, substantially as set forth.

3. The combination, with a draw-bar, A, having shoulders *a a* inversely beveled, of a stirrup-strap, B, having its ends doubled back inwardly onto its length to form hooks *b b*, the extremities of which are beveled the reverse of the shoulders *a a*, and bolt C, substantially as set forth.

4. The combination, with a draw-bar having shoulders *a a*, and having an inverse transverse curvature, of a stirrup-strap having hooks *b*, the extremities of which are curved the obverse of shoulders *a a*, and a bolt passing through the two thicknesses made by said hooks, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

ROBERT MORRIS.

Witnesses:

CHAS. B. MILLER,

FRANK D. THOMASON.