(No Model.)

J. TIMMS.

CAR COUPLING.

No. 496,920. Patented May 9, 1893.

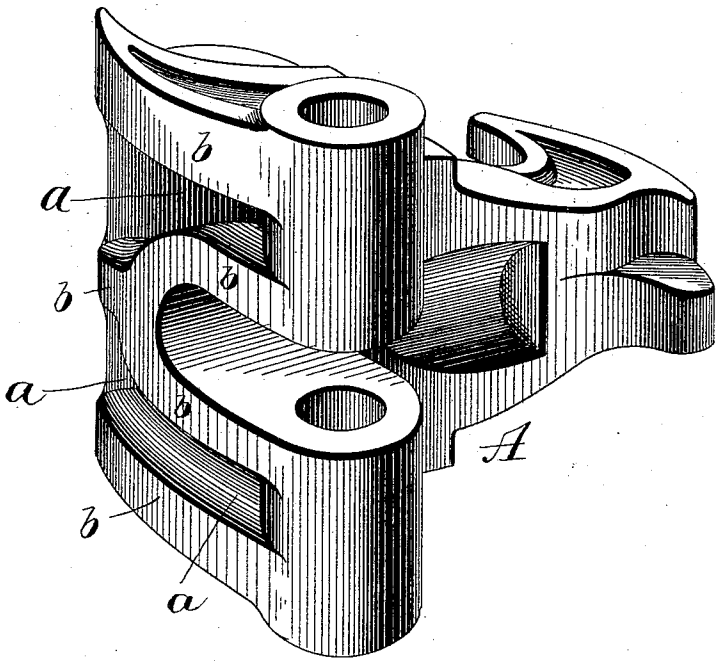
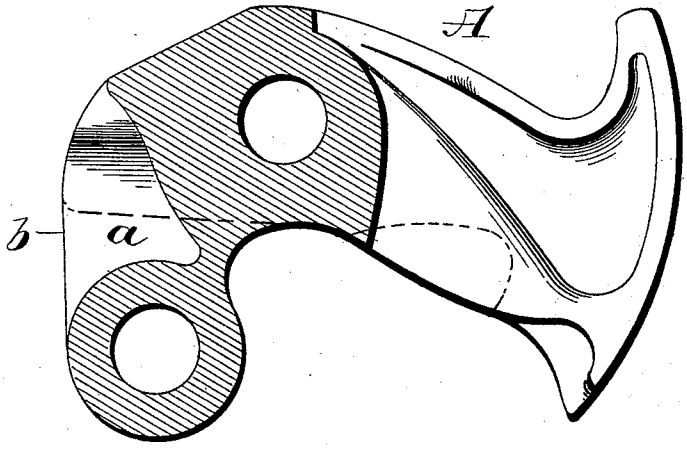


Fig. 1

Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES TIMMS, OF COLUMBUS, OHIO, ASSIGNOR TO THE BUCKEYE AUTOMATIC CAR COUPLER COMPANY, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 496,920, dated May 9, 1893.

Application filed January 7, 1893. Serial No. 457,682. (No model.)

To all whom it may concern:

Be it known that I, JAMES TIMMS, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-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 car couplings and more particularly to the class known as the Janney coupling.

The object is to reduce weight, increase strength, and diminish the chances of flaws in the castings not being discovered, and with this end in view the invention consists in a coupling knuckle the outer face of which is recessed just as much as the knuckle will bear to decrease the weight and to give strength by forming ribs therein instead of solid metal as heretofore.

It further consists in certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in front elevation of a knuckle. Fig. 2 is a sectional view.

A represents the knuckle. This may be made in any shape desirable but I have shown in the drawings the particular style known as the Janney coupling. Ordinarily the forward or outer face is plain and solid but in my present invention I dispense with just as much metal as possible and in doing this form recesses *a*, *a*, therein as deep as possible between the edges of the knuckle so as to not only dispense with metal by reducing the quantity used and consequently lessen the weight, but also form ribs *b* at all of the edges at which points the thickness of the metal is in other words just the same as in other knuckles of this style. So to repeat, the ribs are formed by the metal which is left remaining after the cavities *a a* are formed. This still leaves enough metal in the knuckle to make it the usual size and to give it the required strength for the ribs and make it stronger than the solid metal would. Thus to sum up there are four advantages gained by my present invention. First, I decrease the weight of the knuckle which is a decided advantage over prior constructions in which the knuckle is solid and entirely without recesses. Second, by taking out the metal in this way heavy and strong ribs are formed thus increasing the strength at this point where the greatest strain and punishment is. Third, it lessens the chances for bad metal in the knuckle resulting from defective casting, flaws being more easily seen in this form than in the other. Fourth, it will anneal much better by being constructed in this way. It is evident that recesses might also be formed at other points as for instance in the upper and lower edges and in the inner end, also that other slight changes might be resorted to without departing from the spirit and scope of my invention and hence I do not wish to limit myself to the exact construction herein set forth, but,

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

1. A knuckle for car couplings having recesses or cavities formed in its outer face and ribs formed outside of said recesses or cavities, substantially as set forth.

2. A knuckle for car couplings recessed on the outer face between the edges whereby ribs are formed at said edges, substantially as set forth.

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

JAMES TIMMS.

Witnesses:
E. P. SNIVELY,
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