E. D. CLAPP & F. VAN PATTEN.

Axle-Clip Tie for Carriages.

No. 168,321. Patented Oct. 5, 1875.

Fig. 1.

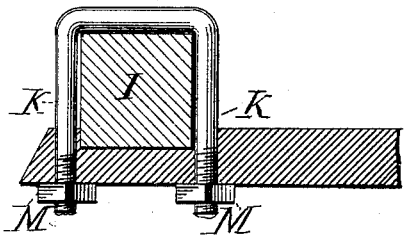


Fig. 2.

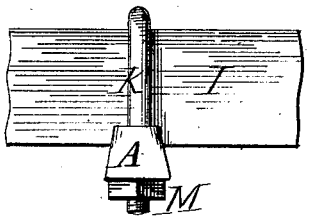


Fig. 3.

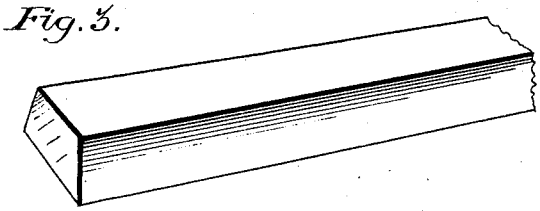
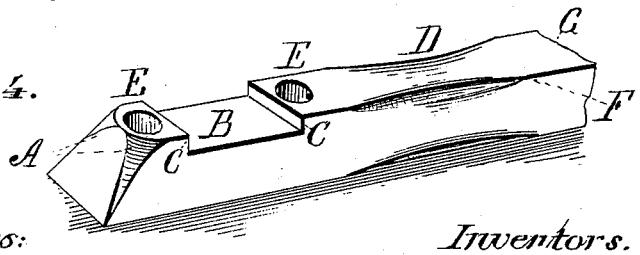


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

EMEROUS D. CLAPP AND FREDERICK VAN PATTEN, OF AUBURN, NEW YORK.

IMPROVEMENT IN AXLE-CLIP TIES FOR CARRIAGES.

Specification forming part of Letters Patent No. **168,321**, dated October 5, 1875; application filed September 15, 1875.

CASE A.

To all whom it may concern:

Be it known that we, EMEROUS D. CLAPP and FREDERICK VAN PATTEN, of Auburn, county of Cayuga and State of New York, have invented certain new and useful Improvements in Axle-Clip Ties for Carriages; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 represents a sectional view of our axle-clip tie secured in position upon the axle. Fig. 2 is a front view of the same. Fig. 3 is a perspective view of a bar from which it may be formed. Fig. 4 is a perspective view of our axle-clip tie.

Axle-clip ties in common use are liable to get out of position by twisting upon the axle, no means but the bolts and nuts of the axle-clip being employed to hold them in place.

The object of our invention is to produce an axle-clip tie which shall be graceful in appearance, comparatively cheap, and yet be provided with means to obviate the objection above stated. It consists of an axle-clip tie as a new article of manufacture, as will be more fully hereinafter described.

To produce our axle-clip tie, we take a bar of iron of a trapezoidal form, as shown in Fig. 3, and by a milling-machine form the end thereof as shown at A, Fig. 4. A recess, B, with right-angular sides C, is then cut in its surface, and a neck, D, is fashioned as shown in the same figure. Its other surfaces to the point F are then finished by milling, filing, grinding, or other abrasive processes. The holes E E are then drilled; or they may be drilled before it is finished. It is then severed from the bar at the point G, and is ready for the market and use.

Instead of forming the recess B, the end A, and the neck D by milling, as described, the same may be done by casting malleable iron in molds, or by forging by dies, or otherwise, and then finishing all its surfaces by milling, grinding, or filing, or by any of the well-known processes in common use.

Figs. 1 and 2 show its position when in use. The recess B receives the axle I, the sides C snugly fitting the latter, the bolts K and nuts M securely holding the two together.

The advantages possessed by our axle-clip tie are that, by reason of the recess B, it cannot readily be twisted or turned out of position by the strain to which the carriage is subjected; it has a graceful contour given it by being made from a bar of trapezoidal form, and the end and neck being fashioned as described; and it can be easily and cheaply made for the market as an article of carriage-hardware.

Having thus fully described our invention and the merits it possesses, what we claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, an axle-clip tie for carriages provided with a recess, B, and shank D G, substantially as shown and described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

EMEROUS D. CLAPP.
FREDERICK VAN PATTEN.

Witnesses:
HORACE T. COOK,
DELAMER E. CLAPP.