E. D. CLAPP & F. VAN PATTEN.

Axle Clip-Tie and Loop.

No. 168,320. Patented Oct. 5, 1875.

Fig. 1

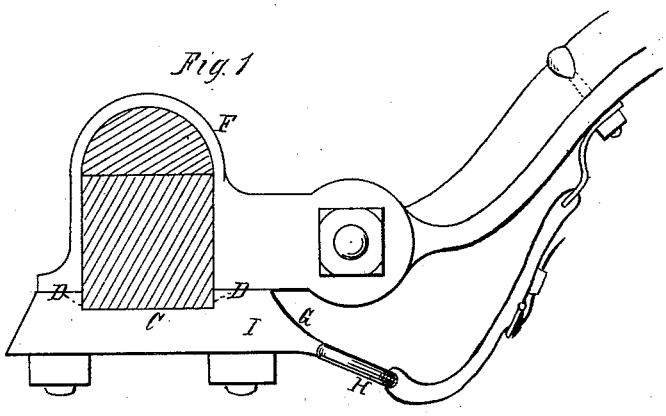
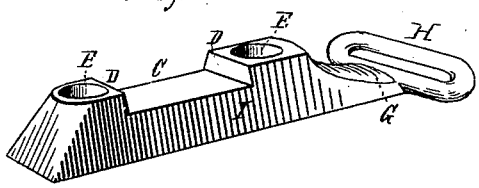


Fig. 2

Fig. 3



Witnesses

L. Wilkinson

Inventor

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UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN AXLE-CLIP TIES AND LOOPS.

Specification forming part of Letters Patent No. **168,320**, dated October 5, 1875; application filed September 15, 1875.

CASE D.

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 Combined Axle-Clip Tie and Safety-Loop for Carriages; and we 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 is a side elevation, partly in section, showing the device secured to the axle. Fig. 2 is a vertical section of the bar from which it is formed. Fig. 3 is a perspective view of the device.

The object of our invention is to produce a combined axle-clip tie and safety-loop; and it consists of a new article of manufacture, formed in a single continuous piece from a blank of metal, and thus being without break or joint, welded, or otherwise. Such articles of carriage-hardware are commonly made from two parts of malleable or other iron welded together, the safety-loop being in this manner joined to the axle-clip tie. In such cases the requisite strength of the parts is wanting, while an expensive manipulation is required in their production. Our improved article is made from a continuous bar, such as is shown in section in Fig. 2, that portion forming the safety-loop being broken down or flattened, which is subjected to the operation of dies, which form it into desired shape, as is usual in the methods of fashioning metal. It is then milled, filed, ground, or otherwise finished by the processes in common use into the shape shown in Fig. 3, a recess, C, with square shoulders D, being formed in it, to embrace the axle A, as shown in Fig. 1. The holes E E are then punched or drilled, and the article is ready for use. It is then secured to the axle by means of the bolts and nuts of the clip of the coupling F, as shown in Fig. 1. The holes E E may be formed before the finishing process takes place. When the loop is joined to the body of the tie by a welded joint, as is the common practice before referred to, the part requiring the greatest strength is rendered the weakest, and hence is liable to be twisted and easily broken by the strain exerted upon it by the forcible movements of the thills, which are connected to it by a strap extending from the thill-coupling.

The advantages possessed by our device are that the flat surfaces of its body I, and the curved surfaces of its neck G and loop H, are formed so evenly as to require slight finishing. A recess, C, is formed, having right-angular sides, which enables the axle to rest evenly and firmly therein, and it, being formed of one piece, has great strength in that portion which is subjected to the greatest strain in use.

Having thus set forth the nature and merits of our invention, what we claim, and desire to secure by Letters Patent, is—

As a new article of manufacture, an axle-clip tie and safety-loop, made of a single piece of metal, and having a recess, C, substantially as shown and described, and for the purpose set forth.

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.