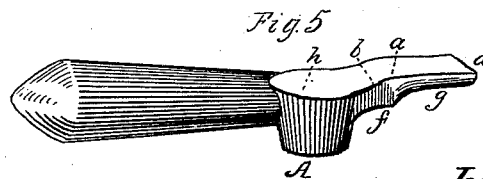
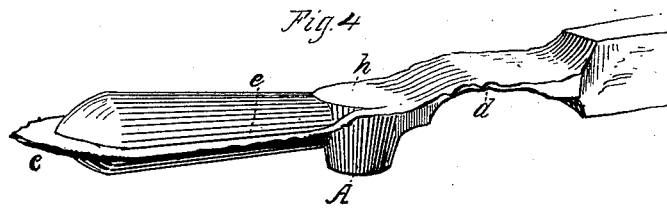
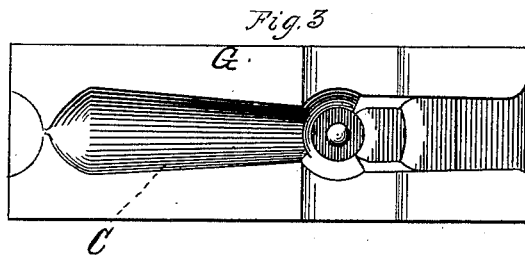
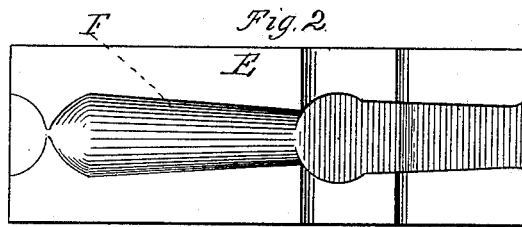
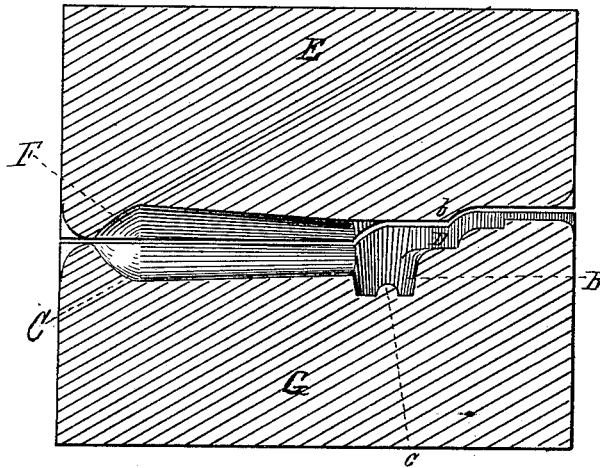


E. D. CLAPP & F. VAN PATTEN.
 Dies for Making Body-Loop Blanks for Carriages.

No. 168,322.

Fig. 1

Patented Oct. 5, 1875.



Witnesses.

E. B. Johnson
A. J. Johnson

Inventors.

Emerous D. Clapp & Frederick Van Patten
by Knapp & Philipp
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UNITED STATES PATENT OFFICE

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

IMPROVEMENT IN DIES FOR MAKING BODY-LOOP BLANKS FOR CARRIAGES.

Specification forming part of Letters Patent No. **168,322**, dated October 5, 1875; application filed September 15, 1875.

CASE B.

To all whom it may concern:

Be it known that we, EMEROUS D. CLAPP and FREDERICK VAN PATTEN, of the city of Auburn, in the county of Cayuga and State of New York, have invented a new and useful Improvement in Dies for Forging Blanks for Body-Loops for Carriages, and in the blank produced thereby; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a vertical section of the dies employed for forming the blank for the body-loop. Fig. 2 is a plan view of the face of the upper die. Fig. 3 is a plan view of the face of the lower die. Fig. 4 is a perspective view of the blank as it comes from the dies. Fig. 5 is a perspective view of the blank after it is severed from the bar from which it is forged, and the fins made by the dies are removed.

The object of our invention is to produce a body-loop blank for carriages in such a manner that it will have a contour which will enable the blacksmith to readily and accurately turn up the lip which embraces the spring-bar of the body of the carriage, and at the same time have a graceful and better shape than that heretofore given. It consists in the dies and the blank produced by them, as will be more fully hereinafter set forth.

To produce our body-loops we take a bar of iron of suitable size and shape, and by a drop or other suitable means break down or flatten that part of it which forms the lip *a* and the rear of the boss *A*. As thus fashioned, the blank is ready for swaging in the dies, which are constructed as follows: The lower die *G* is provided with a circular or nearly circular depression, *B*, of a depth and a diameter suitable to form the boss *A* of the body-loop. At or near the center of this depression is formed a protuberance, *c*, which projects vertically to a height sufficient to make a depression in the boss *A*, which acts as a guide to the drill or punch which perforates said boss in the manipulation of the blank by a blacksmith.

A groove, *C*, slightly shallower and narrower at its end adjacent to the depression *B* than at its outer end, is formed in the face of the

die from the depression *B* to its outer end. Upon the opposite side of said depression *B* is provided a recess, *D*, which, for a portion of the way, has its lower surface a plane and its sides slightly rounded. It then recedes in a curve, and has its lower surface and its sides rounded.

That part of the die forming the recess *D* and depression *B* is slightly raised above that forming the groove *C*, in order that the fin may not be wholly on the top surface of the boss *A*, and that the lip *a* may have the configuration more fully hereinafter described.

The upper die *E* is provided with a recess, *F*, corresponding in general contour to that in the lower die at *C*. It also has a depression of a circular or nearly circular form, and of a proper depth to finish the boss *A*, the upper surface of which is a plane, and which is continued to finish the upper surface of the lip *a*. This continuation is curved from the point *b* to permit the lip to slightly project above the face of the boss *A*. The dies so formed are secured in any of the well-known presses or hammers, and are ready for use.

The bar, broken down to form the lip and the boss, as described, is placed, properly heated, between the dies, and is forced by the upper die into it, and the lower one filling the recesses and depressions in them both. The blank thus formed, when removed from the dies, has the contour shown in Fig. 4. It is then separated from the bar at the point *d*, and the fin *e* is removed by milling, filing, or any of the well-known means for doing this. The blank then has the general appearance shown in Fig. 5.

That portion of the lip *a* at *f* is made thicker than that at *g*, as shown, and the latter portion is thrown slightly above the face *h* of the boss *A*, in order that a guide may be formed for the blacksmith in bending the lip at right angles to the face *h* of the same, in the subsequent operations which he performs upon it in adapting it to the spring-bar of the carriage-body. The body-loop blank thus formed has a more regular contour than that heretofore given, and is especially adapted by the configuration of its lip *a* to the subsequent manipulations of the blacksmith, as above described.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The dies having the depressions and recesses of the form substantially as shown and described, and for the purpose set forth.
2. The body-loop-blank, made with a lip, *a*, of the form 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.

EMERIOUS D. CLAPP.

FREDERICK VAN PATTEN.

Witnesses:

HORACE T. COOK,

DELAMER E. CLAPP.