(No Model.)

F. H. KIEKENAPP.

CRUPPER.

No. 451,561. Patented May 5, 1891.

Fig. 1.

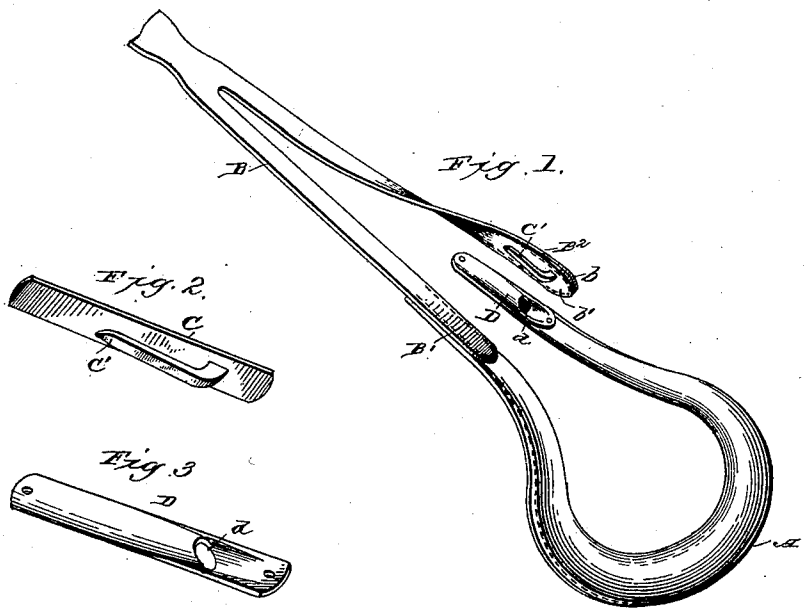


Fig. 2.

Fig. 3

Fig. 4.



Fig. 5

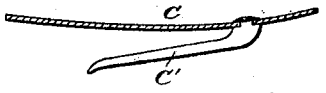


Fig. 6.

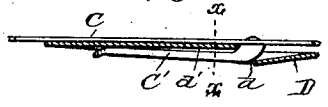


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK H. KIEKENAPP, OF FARIBAULT, MINNESOTA, ASSIGNOR OF ONE-HALF TO GEORGE WESTERMANN, OF SAME PLACE.

CRUPPER.

SPECIFICATION forming part of Letters Patent No. 451,561, dated May 5, 1891.

Application filed March 26, 1890. Serial No. 345,361. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. KIEKENAPP, of Faribault, in the county of Rice and State of Minnesota, have invented certain new and useful Improvements in Cruppers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

My invention relates to improvements in cruppers, and particularly to novel means for connecting the crupper to the billet of the crupper-strap.

I will first describe my improvements and will then point out their particular features of novelty in the clauses of the claim at the end of this specification.

Referring to the accompanying drawings, Figure 1 represents a perspective view of a crupper provided with my improvements. Fig. 2 is a perspective view of the elastic plate to which the hook is attached; Fig. 3, a similar view of the socket-plate with which the hook co-operates; Fig. 4, bottom plan view of said socket-plate; Fig. 5, a longitudinal sectional view showing how the hook-plate is capable of being flexed or bent to permit of the ready entrance of the hook into the socket; Fig. 6, a similar view showing the hook fully entered; Fig. 7, a cross-sectional view taken on the line x x, Fig. 6.

Similar letters of reference in the several figures indicate the same parts.

The letter A represents the crupper proper; B, the crupper-strap, having its rear end forked or divided into two billets B′ B^2, the former of which is sewed permanently to the crupper, as shown.

Between the parts b and b', composing the end of the billet B^2, is inserted a thin steel plate C, which bears a hook C′, that projects through the lower portion b', the said plate C being secured in place by stitching the parts b b' together near its edges, as shown.

Upon the co-operating end of the crupper is secured by rivets or otherwise a socket-plate D, having a somewhat elongated opening d in it near one end for admitting the end of the hook C′, and grooved or concaved longitudinally, as shown at d', to adapt it to receive the body of the hook C′ and prevent the same from turning. It will be seen that the front edge of the opening is made high and the rear edge depressed, so that the hook runs readily into place without changing its angular position. To connect the parts it is only necessary to slightly bend the elastic metal plate C, so as to throw downward and outward the end of the hook C′, as shown in Fig. 2, and then thrust said hook into the opening d of the plate D and draw upon the billet B^2 until the body of the hook has fully entered through the said opening d and lies within the longitudinal groove D′, as shown in Fig. 6, the slight bending or flexure of the plate C, when in the position shown in said Fig. 6, operating to keep the parts tightly locked together.

The means of connecting the billet B^2 to the crupper is very simple and inexpensive, and the joint produced is so neat as to render it difficult for the ordinary observer to tell to which billet the connecting devices are applied.

Having thus described my invention, what I claim as new is—

The combination, with the crupper and the billet of the crupper-strap, of the elastic base-plate held between the parts of the billet and provided with the projecting hook or tongue and the co-operating plate secured to the crupper, having the opening and the longitudinal groove for receiving the hook or tongue of the co-operating plate, substantially as described.

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Witnesses:
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