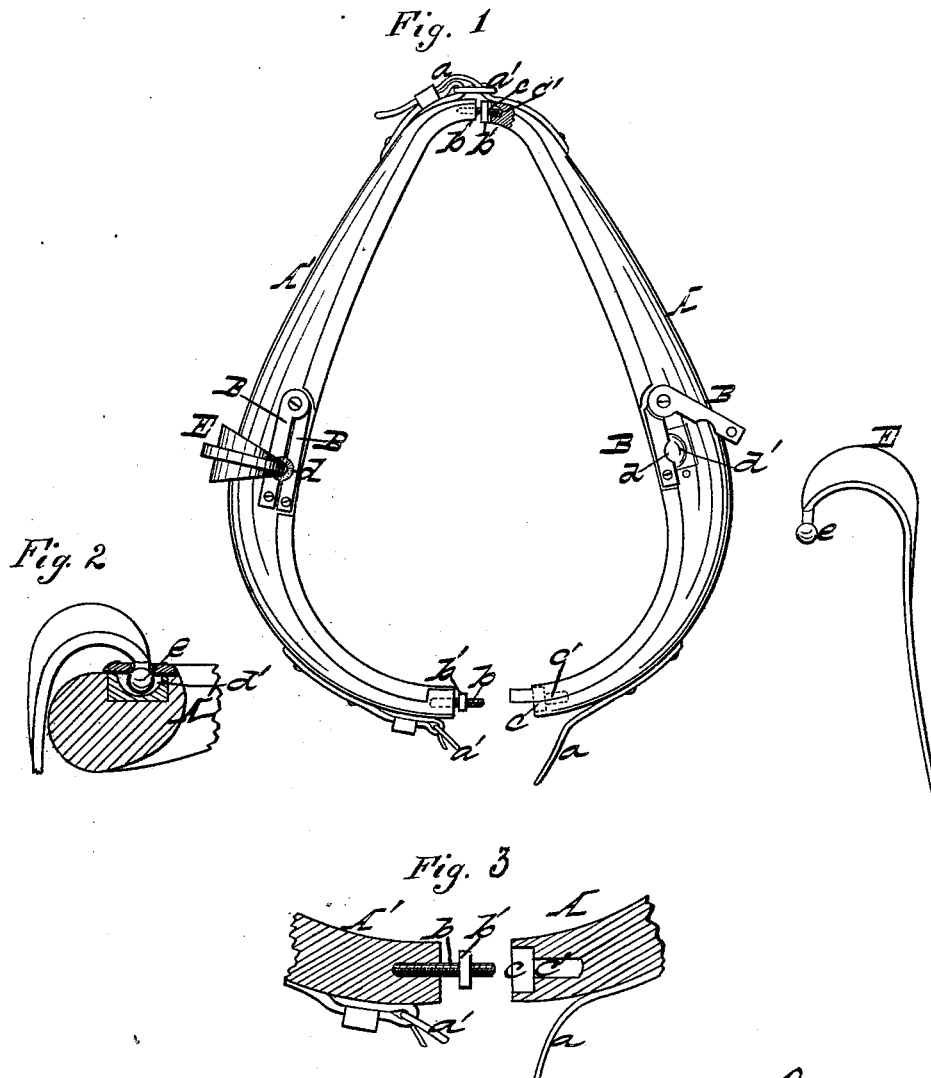


J. K. PUMPELLY & E. COLLINS.

HORSE-COLLAR.

No. 186,044.

Patented Jan. 9, 1877.



WITNESSES  
*Thomas Bernard*  
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# UNITED STATES PATENT OFFICE

JAMES K. PUMPELLY AND ENOS COLLINS, OF FOND DU LAC, WISCONSIN.

## IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. **186,044**, dated January 9, 1877; application filed July 8, 1876.

*To all whom it may concern:*

Be it known that we, JAMES K. PUMPELLY and ENOS COLLINS, both of Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Horse-Collars; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a front view of our improved horse-collar, and one of the trace-tugs detached therefrom, and Figs. 2 and 3 are enlarged detached views thereof.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to a certain improvement in horse-collars; and it consists of the adjustability of the parts or sections of the collar with reference to each other and of the trace-tugs to the collar, substantially as hereinafter more fully set forth.

In the annexed drawing, A A' refer to the two sections of the collar, which are connected together by the straps and buckles *a a'* or other suitable medium. The section A is provided at its ends with screws *b b*, having nuts *b' b'*, by adjusting which upon the said screws a greater or less distance from the ends of the section A' the ends of the section A, which are provided with sockets *c c'* to receive the nuts *b' b'* and screws *b b*, can be removed or isolated to a greater or less extent from the section A', varying or increasing the size of the collar. B B are plates, hinged together in pairs and to the parts or sections of the collar, and provided with orifices *d d*, each being made by recessing the two plates of a

section upon their meeting or opposite surfaces, as shown. Coincident with the orifices *d d*, and made in the sections or parts of the collar, are sockets *d' d'*, to receive balls *e e* upon the bowed or angularly-shaped tugs or plates E E, to permit of the swiveling of the latter to the collar.

By thus constructing the tugs or plates E E their free ends, to which the traces are connected, are caused to stand out laterally, and be free from side draft or rubbing, rendering the action of the horses easier, &c. The plates B B being hinged together, permit of their separation or being swung apart, and the tug-plates E E removed for renewal, &c., when necessary.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The parts or sections A A' of a horse-collar, provided, one with screws *b b* and nuts *b' b'*, and the other with sockets *c c'*, substantially as and for the purpose set forth.

2. A horse-collar, having sockets *d' d'*, over which are hinged plates B B, having orifices *d d*, in combination with the tug-plates E E, having balls *e e*, substantially as and for the purpose set forth.

3. The tug-plates E E, constructed as described, and provided with balls *e e*, in combination with the horse-collar, having the sockets *d' d'*, and hinged perforated plates B B, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

JAMES K. PUMPELLY.  
ENOS COLLINS.

Witnesses:

J. S. HAZARD,  
PATRICK CANFIELD.