

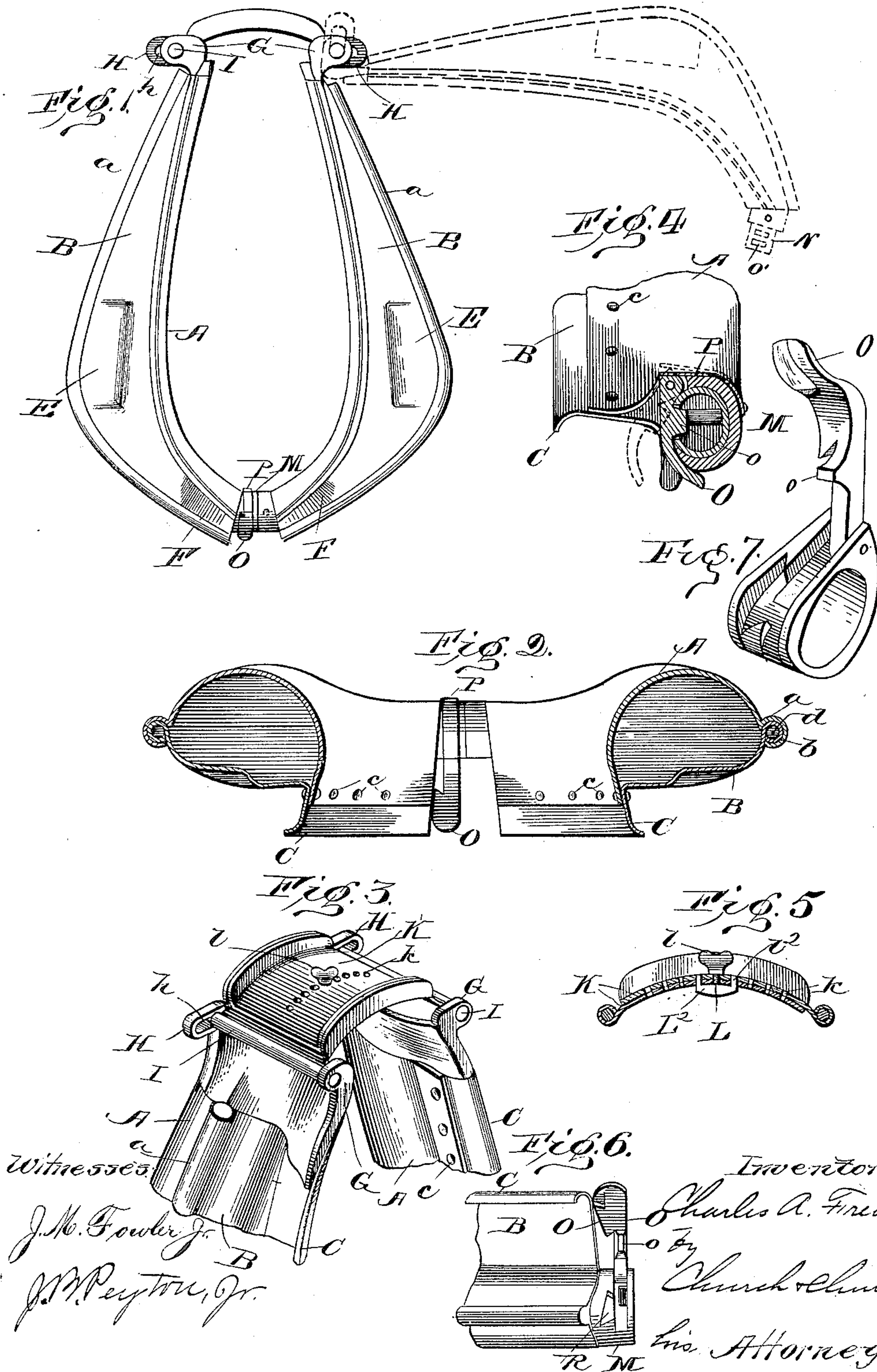
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Patented Sept. 4, 1900.

C. A. FRENCH.
HORSE COLLAR.

(Application filed Sept. 13, 1898. Renewed Mar. 9, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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OF SAME PLACE.

HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 657,236, dated September 4, 1900.

Application filed September 13, 1898. Renewed March 9, 1900. Serial No. 8,077. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. FRENCH, of Madison, in the county of Dane and State of Wisconsin, have invented certain new and
5 useful Improvements in Horse-Collars; 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
10 to the letters of reference marked thereon.

This invention has for one of its objects to provide a simple, efficient, and cheap metallic horse-collar, further objects of the invention being to provide for adjustment of the collar
15 to accommodate horses' necks of different sizes and to enable the two sections of the collar to be conveniently disconnected when it is desired to remove the collar from the horse's neck or to be united firmly when in use.

Referring to the accompanying drawings,
20 Figure 1 is a front elevation of a collar constructed in accordance with my present invention, one of the sections being shown open in dotted lines. Fig. 2 is a cross-sectional
25 view, taken approximately midway of the length of the collar, looking downwardly in Fig. 1 and with the latch thrown open. Fig. 3 is a detail perspective view of the upper end of the collar, showing the adjusting mechanism and connection between the upper ends
30 of the sections. Fig. 4 is a cross-sectional view through the fastener at the lower end of the collar. Fig. 5 is a detail section through the connecting devices at the upper end of the collar. Fig. 6 is a detail elevation looking
35 upwardly at the fastening device at the lower end of the collar. Fig. 7 is a detail perspective view.

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

In carrying my present invention into practice I preferably form the entire collar, including the shoulder-pads, fore-wale, and fastening devices, of metal, although it is obvious that portions may be covered with leather
45 should it be found desirable or convenient in use so to do. The collar is formed in two sections, each section constituting one of the shoulder-pads, and in the main each section
50 is formed of two integral pieces of sheet metal, that piece which constitutes the shoulder-

pad proper being preferably zinc and is indicated by the letter A in the accompanying drawings. It is rolled or stamped to fit accurately the conformation of the horse's
55 shoulder at the point where the pressure of the draft is applied, and its edges are drawn back, so as to be out of contact with the horse in every position which the collar can assume while in use. The outer portion or face of
60 the collar is formed by a second plate of metal, (lettered B,) preferably of iron or sheet-steel, and a continuation of the inner edge of this face-plate B, which is turned forwardly with relation to the collar, constitutes
65 the fore-wale C, around which the hames is applied in the ordinary manner. The inner edge of the shoulder-pad A is united to the base portion of the fore-wale C by means of rivets *c* or equivalent fastening devices, and
70 the outer edges of the face-plate B and shoulder-pads A are united by a rolled seam, which is formed by bending the edge of the face-plate B into a circular bead *b*, preferably
75 around a wire *d*, and then the edge of the shoulder-pad A is rolled or bent around the bead *b*, as at *a* in Fig. 2. This construction makes an exceedingly-rigid union and in addition affords a very strong buffing edge, which
80 will take up the ordinary knocks to which the collar is subjected in handling about the stable, and so protect the pads proper against indentation or injury.

It will be noted that the bead forming the union between the outer edges of the shoulder-pad and face-plate and the line of rivets
85 between the inner edge of the shoulder-pad and face-plate are in positions where they cannot contact with the horse's shoulder in any position which the collar can assume in
90 use, and hence nothing but the smooth unbroken surface of the shoulder-pads A form the bearing-surfaces through which the draft is transmitted from the collar to the horse's body. The face-plate B is provided with de-
95 pressions E at each side for the reception of the tug or hame-hook, and at the bottom depressions F are formed for the link connecting the lower ends of the hames. Thus the hames themselves will seat firmly and squarely
100 against the face-plates and transmit an even uniform pressure to the shoulder-pads.

At the upper ends the two sections of the collar are provided with ears or extensions G and H for the reception of the pins I, upon which the connecting-plates K for the upper ends of the sections are pivoted. These pins I are preferably adapted to have a limited movement at their rear ends in order to permit the shoulder-pads of the collar to work toward and from each other to a slight extent, and thereby ease the movements of the horse when drawing a load, for which purpose the ears H at the rear portions of the sections are provided with slots *h*, in which the rear ends of the pins I are confined and in which they may work laterally to a limited extent.

The connecting-plates K are of substantially U form, as illustrated in Fig. 3, one fitting within the other, so as to prevent lateral play, and for the purposes of adjustment they are provided with a series of registering holes *k*, through any one of which a connecting-bolt L may be passed, as illustrated in Fig. 5. In the preferred construction this connecting-bolt L is provided with a thumb-piece *l* at the upper end and on the inner side with a nut or head *L*², having projections *l*² at each end, which fit in adjacent apertures in the plates K and in a large measure relieve the strain upon the bolt itself.

For uniting the two sections of the collar at the lower end one of the sections is provided with a socket, preferably of substantially-circular shape in cross-section and lettered M, while the opposite section is provided with a corresponding projection N, adapted to fit into the socket M, and when in this position the two sections are united by a transversely-moving fastener or latch O, which is pivoted to the socket member and is provided with a tongue *o*, adapted to enter slots or openings *o'*, as will be readily understood from an inspection of Figs. 1 and 4. This transversely-moving or pivoted latch O is held in its closed or open position by the spring P, and in order to relieve the pin upon which it is pivoted, as well as the extremity of the socket member, from strain when the parts are fastened together the latch or fastener is provided on its inner side with a dovetail projection Q, Fig. 6, which is adapted when the latch is closed to enter a corresponding recess R in the solid wall of the socket portion. Thus any tendency to draw the two sections apart will result in the strain being transmitted through the latch and this dovetail connection to the socket member, rather than through the latch and its pivot-pin to the socket member.

In order to secure an adjustment of the lower ends of the two sections of the collar toward and from each other to accommodate horses necks of different sizes, a series of openings *o'* may be formed in the projection U, as illustrated in the dotted lines in Fig. 1.

As thus described, it will be seen that the collar is simple in construction. The formation of the parts is such that they will maintain

their relative shapes even when subjected to excessive strain and wear and tear incident to rough handling, and, furthermore, by being constructed similar to an ordinary collar it is adapted to be placed in the hands of an ordinary hostler, who cannot fail to properly adjust and use the collar. It will be noted, further, that the latch or locking device O is pivoted on the inner side of the collar and opens toward the fore-wale. Thus when the hames is in position the locking device or latch will be held in its closed position against accidental opening.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A metallic horse-collar having its shoulder-pads formed of sheet metal with the edges drawn back out of position to contact with the horse's shoulder and front plates uniting the edges of the shoulder-pad, the inner edges of said front plates being bent forwardly to form a fore-wale; substantially as described.

2. A horse-collar having its shoulder-pads formed of sheet metal with the edges drawn back out of position to contact with the horse's shoulder, and front plates having their inner edges bent forwardly to form the fore-wale, the outer edges of the front plates and shoulder-pads being rolled together in the form of a rigid bead, and the inner edges of the shoulder-pads being connected with the base of the fore-wale; substantially as described.

3. In a horse-collar the combination with the shoulder-pads having the upwardly-extending ears at the front side and pins carried in said ears, of the upwardly-extending ears at the rear side having the transversely-extending slots therein for confining the rear ends of the pins and the plates connecting said pins; substantially as described.

4. In a horse-collar the combination with the shoulder pads or sections having the upwardly-extending ears, pins mounted in said ears, pivotal plates of substantially U shape in cross-section fitting one within the other, said plates having a series of registering apertures and a connecting-bolt having a head provided with projections for entering apertures adjacent to said bolt; substantially as described.

5. In a fastener for horse-collars, the combination with the two collar-sections of a socket formed in one section, provided with a dovetail recess and a projection formed on the coöperating section adapted to enter said socket, a transversely-moving pivoted latch adapted to unite said sections, provided with a dovetail projection on its inner side, adapted to enter the dovetail recess in the socket for relieving the strain on the pivot of the latch; substantially as described.

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