

W. HARDWICK.
METAL FRAMED HORSE COLLAR.
APPLICATION FILED AUG. 1, 1908.

942,824.

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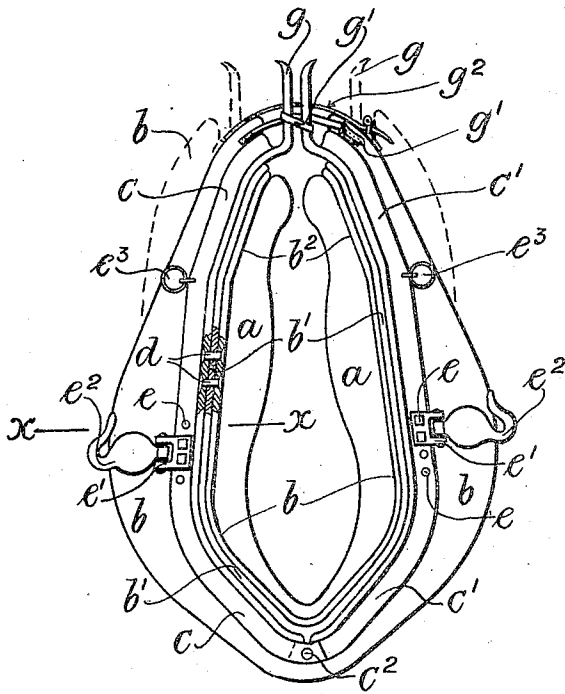


Fig. 1.

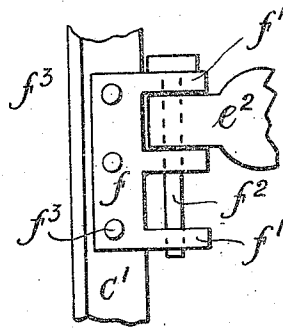


Fig. 2.

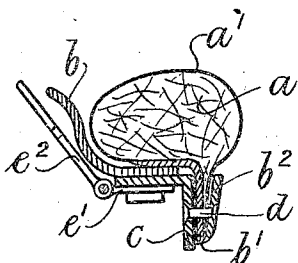


Fig. 3.

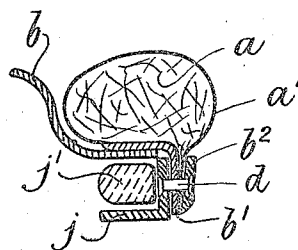


Fig. 4.

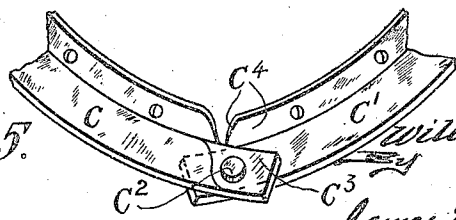


Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

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METAL-FRAMED HORSE-COLLAR.

942,824.

Specification of Letters Patent.

Patented Dec. 7, 1909.

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To all whom it may concern:

Be it known that I, WILLIAM HARDWICK, a subject of the King of Great Britain, and residing at York, Western Australia, Commonwealth of Australia, have invented new and useful Improvements in Metal-Framed Horse-Collars, of which the following is a specification.

The object of this invention is to construct a horse or other animal collar with a metal frame, rim or forewale formed in two halves and which may be secured to the collar by means of stitches or rivets. The use of this invention thereby provides an im-
movable metal frame or foundation and so prevents the spreading or alteration in the form of the collar when in use so that the latter permanently retains its original shape. This metal rim is so adapted and arranged
that it acts and does duty as a hames and when placed in a reverse position it forms a groove or channel in which the ordinary and separate hames may be placed.

A further feature of this invention is that the two halves forming the forewale rim or rim and hames are hinged at their bottom junction and made with a stop or limit formation so as to prevent the collar from being formed or opened outward to an injuri-
ous extent.

The rim is preferably made of a rectangular section but it may be of an open channel or tee or U section.

In order that the construction and use of the invention may be clearly understood reference will be made to the attached drawings in which:—

Figure 1 is a front view showing a collar fitted with this metal rim and acting also as a fixed hames. In this figure the broken lines show the position of the collar when opened out for being placed on or taken off the animal's neck while the draft hooks and the movable lugs are shown at different levels so as to illustrate their joint adjustment. Fig. 2 is an enlarged detail view showing an alternative form of lug for rigid securement to the rim and in which the hook is separately adjustable as to its level. Fig. 3 is a detail cross section view on line *x x* of Fig. 1 and showing the metal forewale doing duty as a hames. Fig. 4 is a cross section view but showing the forewale as in a reverse position to that of Figs. 1 and 3

and forming a groove to receive a separate or ordinary hames. Fig. 5 is a perspective view in part showing the hinged end stop formation of the metal forewale rim.

In these drawings the collar is shown as made with the usual padding *a* and its covering *a*¹ while *b* denotes the afterwale or flap, *b*¹ the facing plate and *b*² a stiffening piece to hold and secure the rivets connecting these pieces to the metal forewale or rim.

The metal rim or forewale is made in two companion sections *c* and *c*¹ and preferably of the rectangular shape as shown which sections are jointed or hinged together at their ends as at *c*² as shown clearly in Fig. 5. The base portions of the two sections of the rim have their lower ends formed with overlapping extensions through which the pivot bolt *c*² passes, the outermost extension *c*³, *i. e.*, that of the section *c*, being designed for coöperation with the angular flange portion *c*⁴ of the other section as a stop, where-
by the movement of the sections on their pivot incidental to opening the collar, is limited.

In constructing a collar according to this invention the inside edge of the covering *a*¹ is brought half way up between the facing plate *b*¹ and the stiffening piece *b*² and then the three elements mentioned are sewed together as in one piece and finally said elements and the rim *c—c*¹ are secured together by the rivets *d* in a through and through manner as clearly shown in Figs. 3 and 4.

The rim *c—c*¹ when used as a hames as in Figs. 1 and 3 is formed with holes *e* whereby the lugs *e*¹ are removably attached by set bolts in order to allow of the adjustment of the draft hooks *e*² to the approved level. The rim *c—c*¹ is provided with the usual guide rings *e*³ for the reins.

In Fig. 2, the lug *f* is shown rigidly secured by bolts or rivet *f*² to the rim section *c*¹, and as formed with three spaced, parallel jaws *f*¹ provided with alining perforations through which the headed bolt *f*² is loosely passed. This construction admits of the draft hook *e*², which is engaged with the bolt *f*², being supported between either the top and central, or the bottom and central jaws, as will be apparent. The two rim sections have their flange portions formed at their upper ends with vertical extensions *g*, which serve as fingers. When the rim is used

as a hames, these fingers are brought face to face and fastened by the hitching strap as g^1 , the free end of which is fastened to the collar by buckles and this strap g^1 acts as an auxiliary securement for the collar in addition to that of the usual strap as g^2 .

Referring to Fig. 4 the metal rim or forewale as j is shown in a reverse position so that it does not do duty as a hames but constitutes a groove or channel to receive a separate hames j^1 of the ordinary construction, said forewale j being secured to the collar in the same manner as above described with reference to the rim $c-c^1$.

What I claim as my invention and desire to secure by Letters Patent is:—

1. The combination, with a horse collar structure, of a rim comprising a pair of exteriorly attached members of angular cross section, said members having the lower ends of their base portions formed with extensions overlapping each other and pivotally connected together, the extension of one member being arranged to contact with the adjacent end of the flange portion of the

other member, for limiting the outward pivotal movement of said members.

2. The combination, with a horse collar structure, of a rim comprising a pair of exteriorly attached members of angular cross section, said members having the lower ends of their base portions formed with extensions overlapping each other and pivotally connected together, the extension of one member being arranged to contact with the adjacent end of the flange portion of the other member, for limiting the outward pivotal movement of said members; up-turned fingers formed upon the flange portions of said members at the upper ends thereof, said fingers being designed to be brought face to face; and means for fastening said fingers in such position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM HARDWICK.

Witnesses:

RICHARD SPARROW,
N. W. BURKE.