

W. IRVINE.
Horse-Collars.

No. 157,606.

Patented Dec. 8, 1874.

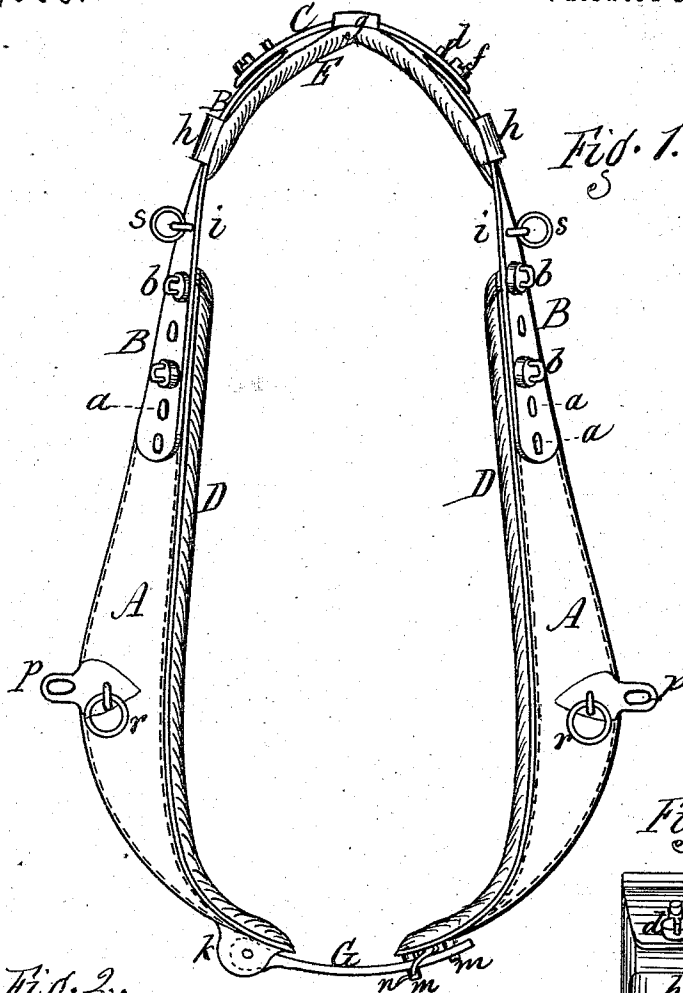


Fig. 1.

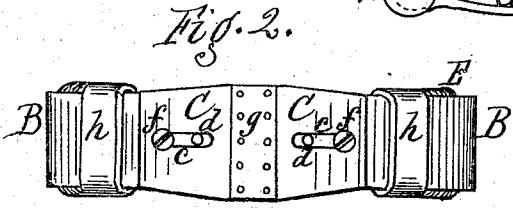


Fig. 2.

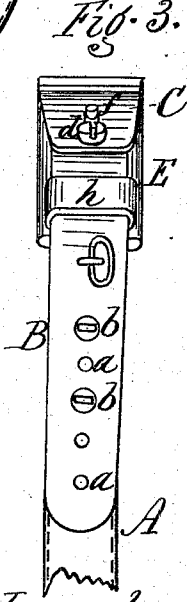


Fig. 3.

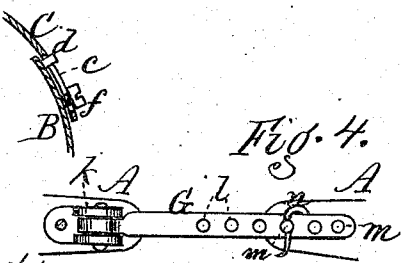


Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM IRVINE, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. **157,606**, dated December 8, 1874; application filed September 21, 1874.

To all whom it may concern:

Be it known that I, WILLIAM IRVINE, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Horse-Collars; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation; Fig. 2, a top view. Fig. 3 is a side elevation. Fig. 4 is a bottom view.

This improvement relates to a metallic collar, which is designed to take the place of the ordinary leather collars and dispense with hames, the traces being attached directly to the collar itself. The invention consists, more particularly, in the construction of the collar, as hereinafter described, whereby the collar is made adjustable both in its length and width.

This collar is formed from plates of metal, swaged or bent in proper form to fit the shoulders and neck of the horse. A A represent the breast-plates, and B B the shoulder-plates. The shoulder-plates overlap the breast-plates, as shown in Fig. 1, and have a series of holes, *a a*, through which pass screws *b b*, setting into the lower plates. Two of these screws are used on a side in order to preserve stiffness of the collar. By removing the screws and setting in the other holes of the plates, the collar may be lengthened or shortened at pleasure, and by this means the vertical adjustment of the collar is produced. C is a neck-plate of curved form, which rests on top of the horse's neck, and sustains the collar. It is jointed in the center by means of a riveted pad, *g*, which forms a hinge and allows the collar to open at the bottom in placing the same over the horse's neck. In such case the collar opens on the center *g*. The ends of this plate are provided with longitudinal slots *e e*, Fig. 2, through which pass studs *d* and screws *f* of the shoulder-plates, by which means the lateral adjustment for widening or narrowing the collar is produced. The screw clamps the parts, while the stud simply prevents turning or twisting, and keeps the parts in position. The slots *e* allow the sliding of

one plate upon the other. D is the shoulder-padding, and E the neck-padding. The shoulder-padding is attached to the plates A A, either by riveting or by sewing through holes formed in the plates, the sewing being indicated by the dotted lines in Fig. 1. The neck-padding is attached fast at the top by the riveted pad *g*, and at the sides it has loops *h h*, which embrace the plates B B, but allow them a free movement for adjustment. This arrangement of the padding leaves a space, *i*, on each side, which comes opposite the shoulder-blades and relieves the pressure, thereby preventing galling. G is the locking-strap at the bottom, which connects the two sides of the collar together. It is pivoted to a lug, *k*, on one side, and has a series of holes, *l l*, which fit over two studs or pins, *m m*, on the other side. One of these pins has a hole, through which is drawn a leather thong, *n*, outside the strap, to retain the same in place. The attachment to the two pins stiffens the connection, and prevents any twisting or turning of the sides of the collar. The holes in the locking-strap allow the collar to be expanded or contracted in width, at the bottom as well as at the top, by the means of the screws and studs *d f*. *p p* are the lugs to which the traces are attached. For double harness, rings *r r* are employed for the attachment of the breast-strap. *s s* are the rings through which the lines pass to the driver.

The object of the invention is to employ a metallic collar which shall take the place of ordinary flexible collars and dispense with hames. This collar is adjustable both in length and width, as above described, and can therefore be fitted to any horse. For a horse of great depth of neck and shoulders, the length of the collar can be let out by changing the screws *b b*. For a horse of great thickness of neck, the top of the collar can be let out by loosening the screws *f f*. For one of great thickness of breast and shoulders, the bottom of the collar can be let out by means of the locking-strap G. The collar can be adjusted longitudinally or laterally at either end independent of the other, and therefore it can be fitted exactly to the animal. It is a great objection to ordinary collars that they are made over a "form," and

have, therefore, no adjustment. This collar, by being connected double at the joints or laps, cannot twist or bend out of shape, but always retains its square position under strain. The spaces *i i* prevent galling of the shoulders, as before described, and the space *j* between the ends of the collar at the bottom also prevent choking, as it relieves pressure on the windpipe.

What I claim as new is—

The metallic collar consisting of the breast-

plates A A, shoulder-plates B B, adjustable neck-plate C, and locking-strap G, combined and arranged in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM IRVINE.

Witnesses:

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EDWIN B. SCOTT.