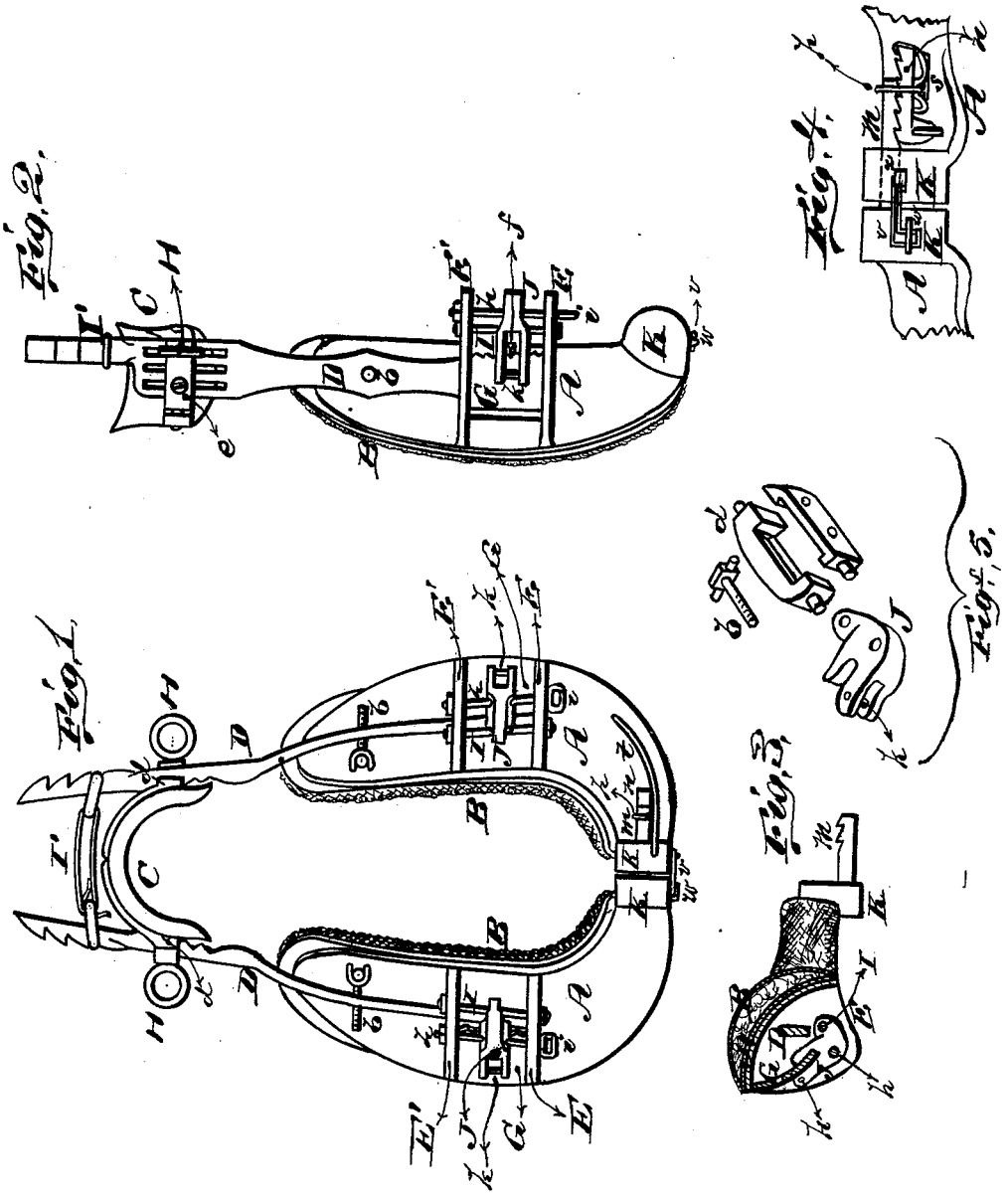
A. RUTHERFORD.

HORSE-COLLARS.

No. 195,657. Patented Sept. 25, 1877.



WITNESSES

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ADAM RUTHERFORD, OF WALLA WALLA, WASHINGTON TERRITORY.

IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. **195,657**, dated September 25, 1877; application filed May 19, 1877.

To all whom it may concern:

Be it known that I, ADAM RUTHERFORD, of Walla Walla, in the county of Walla Walla, Washington Territory, have invented a new and valuable 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 annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my horse-collar. Fig. 2 is a side view of one-half of my collar, and Figs. 3, 4, and 5 are details of the same.

The nature of my invention consists in the construction and arrangement of a horse-collar, as will be hereinafter more fully set forth.

In the annexed drawings, which fully illustrate my invention, A A represent the side pieces with pads B B, and C the top cap or band of my improved horse-collar. The body or side pieces A A and the cap C are connected by means of rods or bars D D, which may be either plain or scrolled, and take the place of hames. On each side piece A, at the front, are formed two brackets, E E′, between which is the draft-bar G. The connecting rod or bar D passes through the top bracket E′, and is fastened in the lower bracket E, said rod or bar D being connected to the side piece A, at or near the top, by a bolt, *b*, and swiveled or oscillating nut, or oscillating bolt alone.

On one side of the cap C, at or near the bottom, I have shown a pivoted block, *d*, to or in which the rod D is fastened by means of the terret H, the screw-shank of said terret passing through a slot in the rod, and the adjoining faces of the rod and block formed with teeth or corrugations, so that the rod can be adjusted up or down, and held firmly at any point. The pivoting of the block *d* is necessary for the working of the adjustable bolt or screw *b* at the upper part of the body. On the other side of the cap C, I have shown the block *d* made solid with the cap, which is intended for use on such collars where the adjustable screw *b* is dispensed with. When this screw is used the collar can be made wider or narrower.

As an auxiliary to aid in holding each main rod D to the cap, a screw, *e*, is passed through another slot in the rod into the block *d*. This screw is very necessary, as without it the terrets would work loose. The rods D may be made entirely of iron, which is preferable, or of wood faced with iron, whichever may be deemed most advantageous.

The draft-bars G on the body of the collar may be either plain or notched. The notched draft-bar is calculated for such draft as plowing, where the weight is low on the ground, which would otherwise have a tendency to bring the wear on the rod that raises and lowers the draft, and this would in a short time wear the threads off, and render it useless.

J represents the movable clevis on each draft-bar G. This clevis has on its inner side a lip, *f*, which extends under and bears against the inner side of the draft-bar, for the purpose of taking the strain off the rod *h* that holds the breast-strap loop *i*. This lip *f* is a very important feature, for, as the draft will be wide, should the clevis get into the center, it would soon bend the rod *h*. On, or rather in, the front end of the clevis J is cut a worm, through which is passed a screw-rod, I, said rod being swiveled in both brackets E E′, by means of which the clevis may be raised or lowered, as required, to regulate the draft, while the collar is on the animal's neck.

The trace or chain is attached to the clevis by means of a bolt, *k*, at its rear end. The loop *i* is formed at the lower end of the rod *h* for the purpose of holding the breast-straps; and said rod *h*, extending through the clevis, as shown, assists in keeping the clevis from wearing the threads on the adjusting-screw; but, for light draft, the rod *h* may be dispensed with.

By means of the adjustable screws *b* above described for adjusting the main rods D D, the collar is adapted to be contracted and expanded, to fit different shaped necks. The collar is fastened at the bottom by having lugs K K formed at the lower ends of the side pieces A A, and one of said lugs having a ratchet-bar, *m*, projecting from it, which goes through a hole in the other lug and interlocks with a pivoted ratchet-bar, *n*, the two being then held together by a link, *p*, and the link held to its place when in use by one or

more springs, *s*. Under the ratchet-bar *n* is a wire guard, *t*, to prevent anything catching underneath.

At the bottom of the collar is a right-angular slotted slide, *v*, the short arm of which passes through the loop *w*, in one of the lugs K, on the lower end of the collar, the longer arm of the slide having a slot through which a set-screw, *x*, passes, and thence into the opposite lug K, in the lower end of the collar, for the purpose of adjusting the width between the lugs, or the opening at the lower end of the collar, so that the teamster will not have to examine the fit of the collar every time he has to put it on. The loop *w* may also be employed for attaching a pole-strap for light draft.

The fastening ratchet-bars may be reversed, so as to have both sides alike, if desired.

The collar thus constructed opens from the bottom, and the strap I′ at the top is so arranged that it can yield to the action of the collar, and this strap may be made of leather, metallic links, or other suitable material. In the construction of this collar, the draft-bars G are to be raised sufficiently to prevent the hame tug or trace from galling or wearing the horse's shoulder.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the body A and cap C, the main connecting-rod D and oscillating or adjustable bolt *b*, for the purposes herein set forth.

2. The combination of the slotted main rod D, cap C with pivoted block *d*, and terret H, substantially as and for the purpose described.

3. The auxiliary screw-fasteners *e*, in combination with the slotted rod D, cap C, block *d*, and terret H, substantially as and for the purpose described.

4. The movable clevis J, provided with the projecting lip *f*, in combination with the draft-bar G, as and for the purpose herein described.

5. The combination, with the brackets E E′, of the rod *h*, having loop *i* on its lower end, and passing through the movable clevis J, as and for the purpose herein described.

6. The combination of the brackets E E′, draft-bar G, clevis J, and screw-rod I, substantially as and for the purpose described.

7. The bottom fastening of the collar, consisting of the rigid ratchet-bar *m*, pivoted ratchet-bar *n*, link *p*, and one or more springs, *s*, substantially as and for the purpose herein described.

8. The wire guard *t*, in combination with the ratchet-fastening, for the purpose described.

9. The right-angular slotted slide *v* at the bottom of the collar, in combination with the loop *w* and set-screw *x*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ADAM RUTHERFORD.

Witnesses:
J. D. LAMAN,
C. G. AUSTIN.