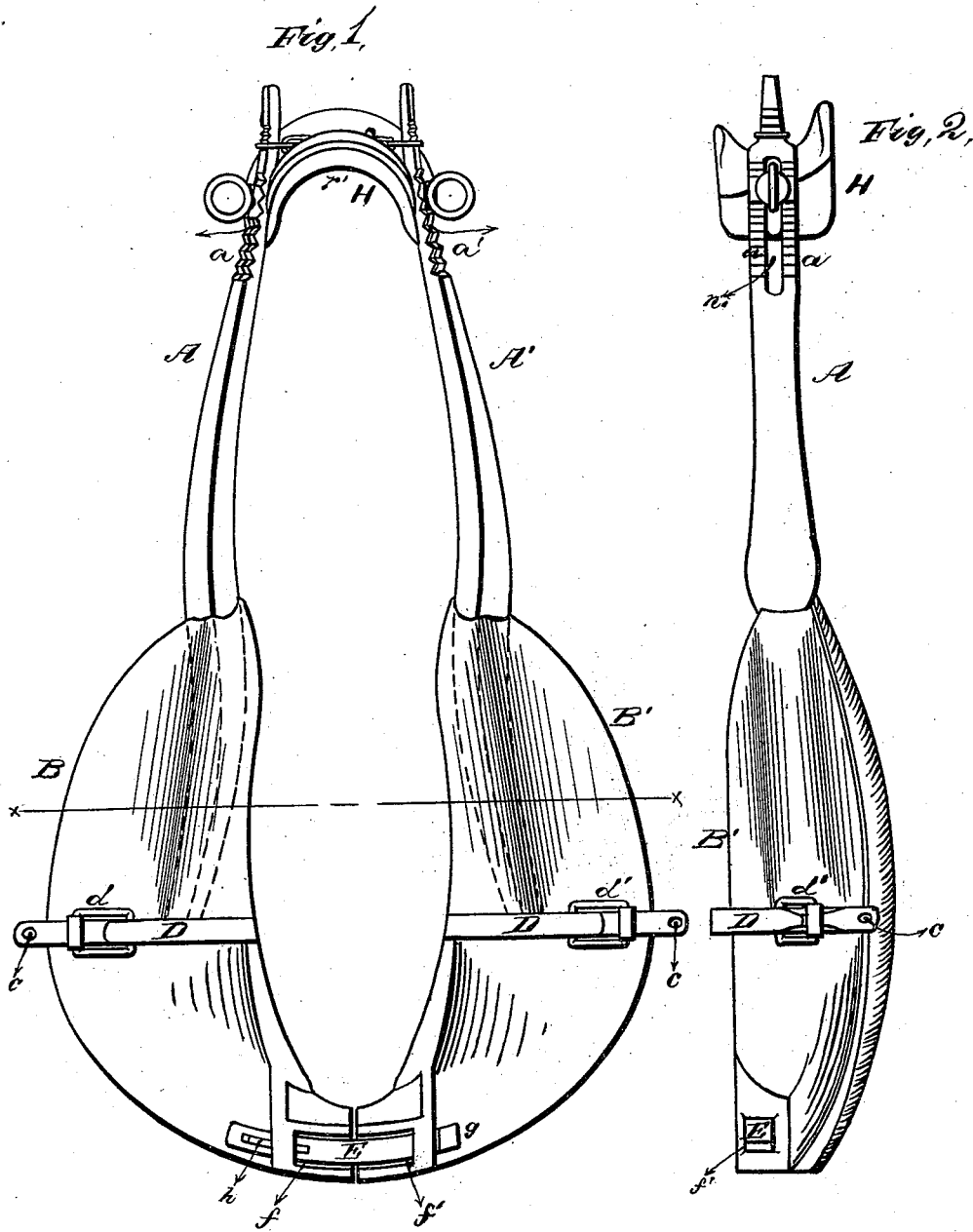


A. RUTHERFORD.
HORSE-COLLAR.

No. 186,627.

Patented Jan. 23, 1877.



WITNESSES
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George E. Upham

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Fig. 3

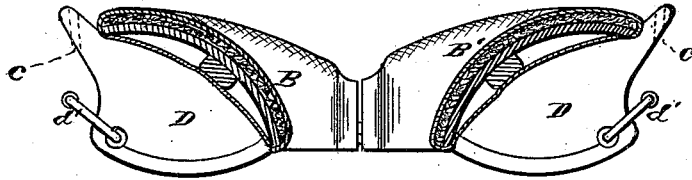


Fig. 4

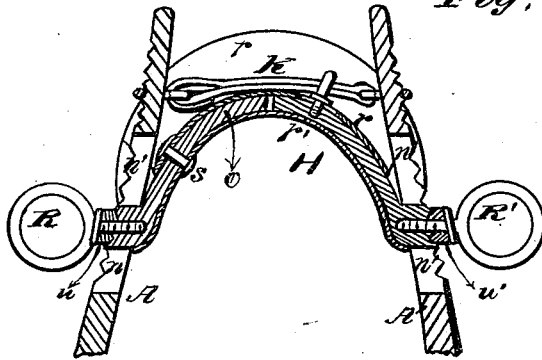
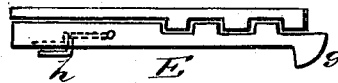


Fig. 5



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ADAM RUTHERFORD, OF WALLA WALLA, WASHINGTON TERRITORY.

IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. 186,627, dated January 23, 1877; application filed November 25, 1876.

To all whom it may concern:

Be it known that I, ADAM RUTHERFORD, of Walla Walla, in the county of Walla Walla and Territory of Washington, 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 front elevation of my horse-collar, and Fig. 2 is a side elevation of the same. Fig. 3 is a horizontal section through lines *xx*. Fig. 4 is a detail sectional view, and Fig. 5 is also a detail view thereof.

My invention relates to horse-collars adapted for light draft; and it consists in the novel construction, combination, and arrangement of the several devices, hereinafter particularly specified and claimed.

The letters A A' of the drawings represent, respectively, the upper sections of my hames, which are preferably formed of wood; but if made of metal will be found serviceable. Each of these sections is serrated at *a* and *a'*, for purposes of adjustment, as hereinafter mentioned. The letters B B' represent the lower concavo-convex sections of my collar, which are respectively united to the sections A A' by cement, bolts, nuts, and screws, or other mechanical appliances. I sometimes, however, construct the sections A and B in one piece, and may also, when desirable, construct the draft-plates D with either the top or bottom section, or with both of the same piece, or may form either part of metal or wood, as the case may require. D D' represent cam-shaped draft-plates attached, respectively, to the sections B B', and are provided with links or clevises at *d d'*, and openings at *c c*.

These links and openings are designed for connecting the collar with the draft-tugs, and may be varied to any form of such devices without departing from the spirit of my invention. It is obvious also that, in some cases, either one or the other may be dispensed with.

The lower ends of my sectional collar are provided with transverse grooves or mortises, as shown at *f f'* on the drawings, within which I arrange removable bar E. This bar is constructed in two sections, as shown in Fig. 5 of the drawings, each of which is serrated, as represented, and adapted for lengthening or shortening at will. It is also provided with a head, *g*, at one end, and a spring, *h*, upon its side and near its opposite end, by which it is secured within the mortises *f f'*, as shown, and is removable therefrom. The upper ends of sections A A' are recessed, as shown at *n n'*, for purposes of adjustment, as hereinafter described. The letter H represents a neck-pad, having a wooden body, *o*, interposed between leather housings *r r'*, and united by a bolt, *s*. K indicates a removable and adjustable strap, having a loop or staple at each end, which engage in the serrations *a* of the hame-sections, and which may be lengthened or shortened at will to adapt the collar to the neck of a horse. The letters R R' designate terrets or rings, having threaded shanks which pass through the serrated blocks *u u'* and into the body of the neck-pad, as shown. The serrated blocks *u u'* engage, respectively, with the serrations *a a'*, and are made removable up or down, at will, by means of the terrets R R' and their threaded shanks.

I usually arrange a bell-holder across the top of my collar, and I sometimes add a staple and ring, or other suitable device, at the bottom of the collar, to adapt it for holding a pole-strap in case it be desirable to use my collar in a double team.

Other like devices and conveniences may be used with my collar without departing from the scope and drift of my invention.

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

1. The sectional horse-collar A B A' B', having the transverse grooves *f f'*, in combination with the removable serrated bar E, made in two parts, and provided with a head at one end and a spring, *h*, at its opposite end, substantially as described, and for the purpose set forth.

2. In a horse-collar the cam-shaped draft-plates D, in combination with the collar-sections A B, and the adjusting and coupling de-

vices E and K, constructed and arranged substantially as described.

3. In horse-collars the serrated blocks *u u'*, in combination with the sections provided with the serrations *a a'*, and the terrets R R, having threaded shanks, substantially as specified.

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

ADAM RUTHERFORD.

Witnesses:

R. E. BAUER,
J. D. LAMAN.