

No. 652,344.

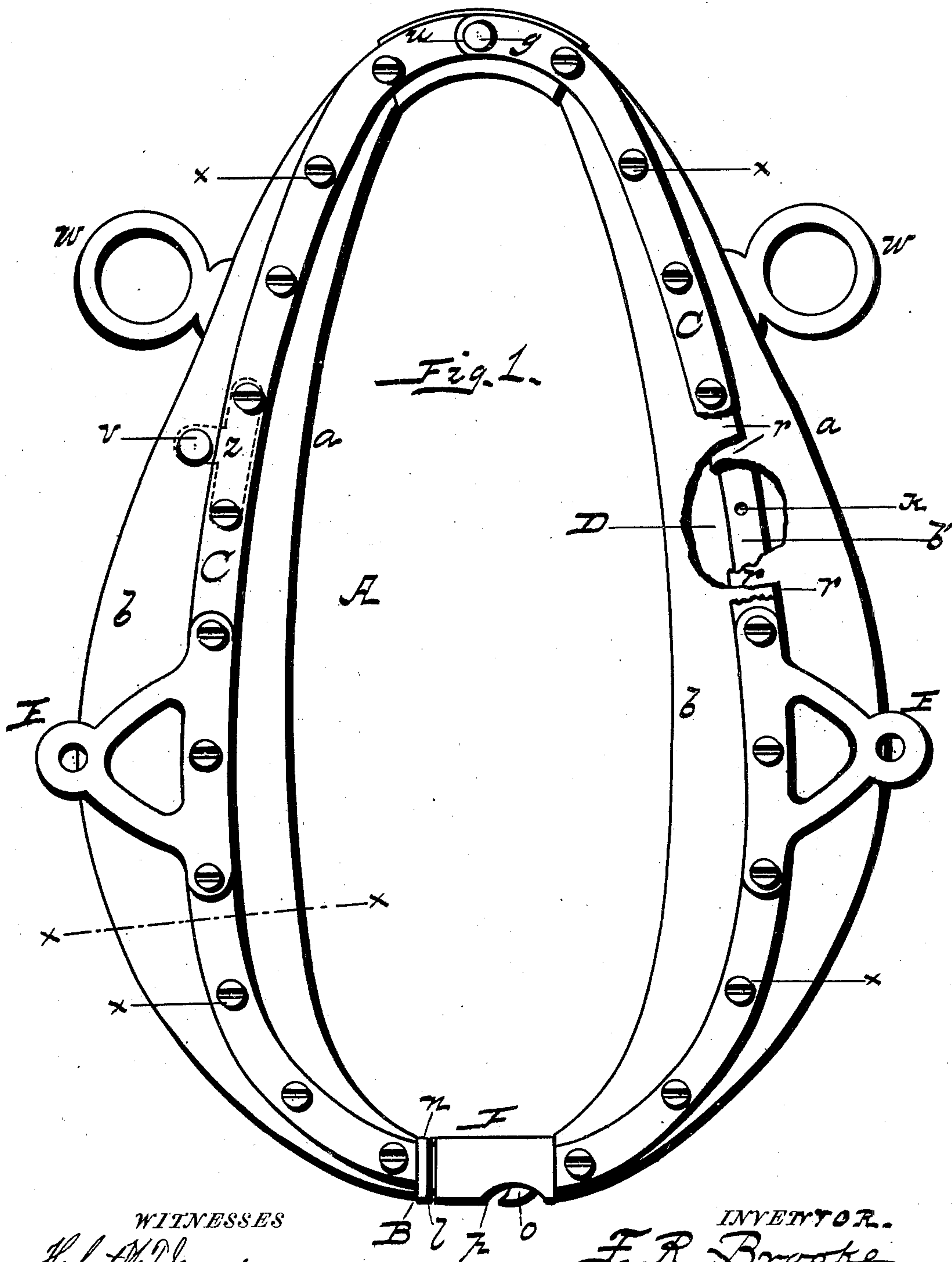
Patented June 26, 1900.

F. R. BROOKE.
HORSE COLLAR.

(Application filed Sept. 27, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES
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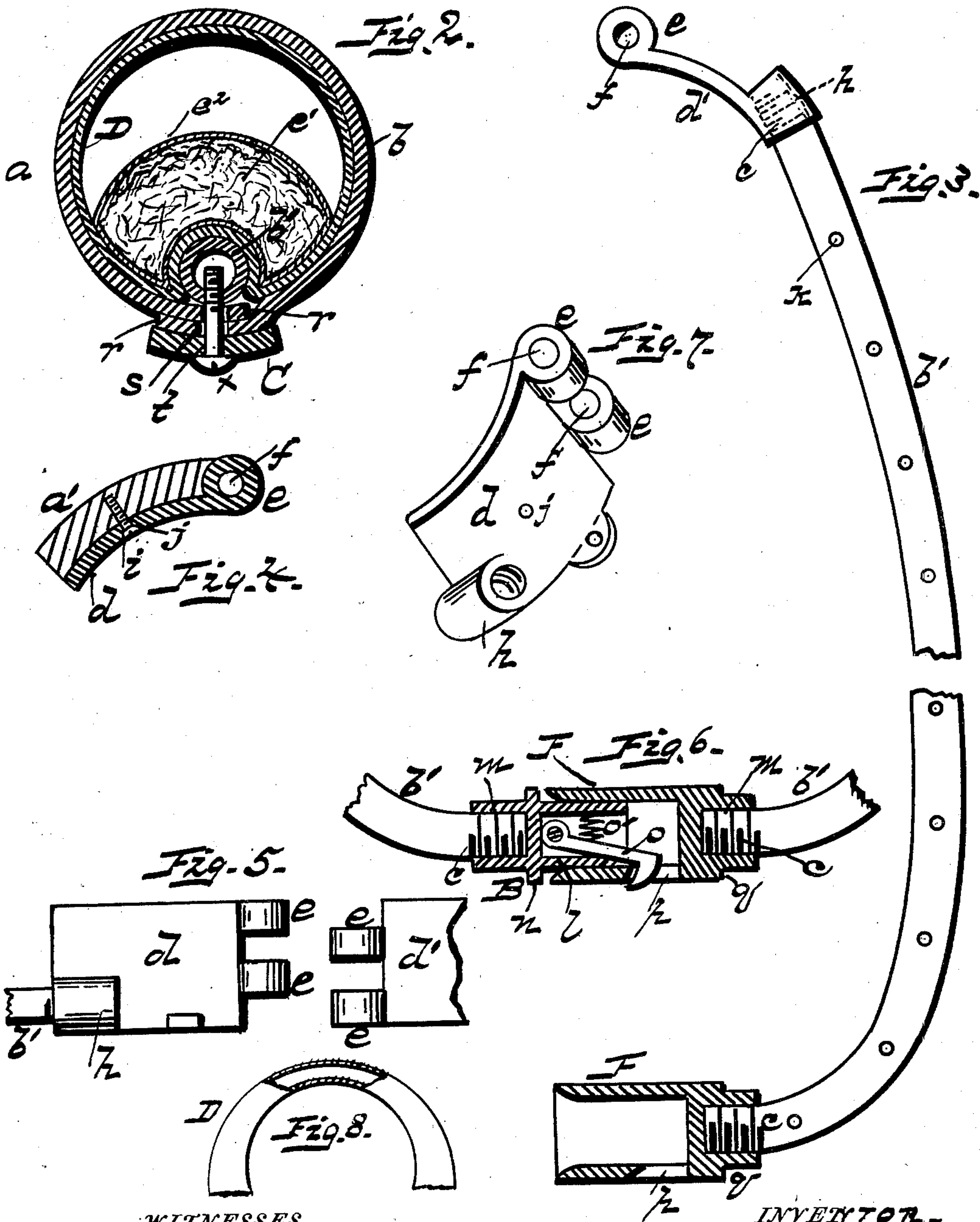
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UNITED STATES PATENT OFFICE.

FREDERICK RICHARD BROOKE, OF NEW YORK, N. Y.

HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 652,344, dated June 26, 1900.

Application filed September 27, 1899. Serial No. 731,830. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK RICHARD BROOKE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Horse-Collars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to improvements in horse-collars, and more particularly to that class of collars wherein the various materials used in stuffing the collar are dispensed with and an inflated rubber tube is used in lieu thereof; and it consists in the novel construction, combination, and arrangement of parts, whereby the desired strength, as well as lightness, is given the collar, at the same time providing a soft cushioned collar for the neck and shoulders of the animal, all as will be hereinafter fully explained, and particularly pointed out in the appended claims.

The annexed drawings, to which reference is made, fully illustrate my invention, in which—

Figure 1 represents a front view of my device, showing a portion of the collar opened, exposing the interior thereof. Fig. 2 is a transverse sectional view taken on the line *x x*, Fig. 1. Fig. 3 is a front view, part sectional, of the brace-frame. Fig. 4 is a vertical sectional view of the hinge-plate detached from the bracing-frame. Fig. 5 is a plan view of the same. Fig. 6 is a detail view of the two meeting ends of the frame, showing the spring-catch pivoted to the hollow tube, the latter and the socket screwed, respectively, to the lower end of each brace-frame. Fig. 7 is a perspective view of the plate. Fig. 8 is a detail view of the upper portion of the inflatable sack.

Referring to the accompanying drawings by letter, A designates the horse-collar, comprising two sections *a a*, composed of a hinged frame *b'* and an inflated sack D, which frame is hinged at the upper ends and fastened together at its lower position by a socket and clasp, hereinafter further described.

This collar has the usual outer casing *b*, in

which is inserted the brace-frame, composed of two sections *b' b'*, formed, preferably, of gas-pipe or other suitable metal tubing bent in the desired shape to conform to the outline or shape of the animal's neck, and the sections screw-threaded at their upper and lower ends, as at *c c*, to engage, respectively, the hinged plates and the lower clasp connections. The plates, comprising two sections *d d'*, are constructed in skeleton form, the same being broad and curved to give the desired shape to the collar where it rests upon the animal's neck, the said plates having cut-away or recessed portions and provided with lugs *e e*, having eyes *f f* for the passage of the securing-bolt *g*, which forms the hinged or pivoted connection for the two plates, and at the opposite end to that having the lugs the plates are constructed with enlarged portions *h h*, which are female screw-threaded to receive the male threads on the upper end of the brace-frame aforesaid. Within this recessed portion is seated a curved block *a'*, of light material, preferably wood, that is held in place by a screw *i*, passing through a perforation *j* in the plate. The brace-frame is further provided with perforations *k*, which are female screw-threaded to receive the fastening-screws by which the casing is held to the brace-frame.

B designates one section of the clasp, consisting of the tubular portion *l* and a solid back *m*, which is female screw-threaded, in which the lower threaded end of a section of the frame is secured. The tubular piece is also provided with a collar *n*, and within this tube is pivoted the rear end of a spring catch or hook *o*, having a coiled spring *o'*, whereby the hook is kept in engagement with the edge of the opening *p* in the opposite section F, which latter is provided with a solid projection *q*, having female screw-threads to engage the male threads on the lower end of the frame on that side or section of the collar. The outer casing is constructed in two sections and so shaped as to conform to the shape of the animal's neck and shoulders, and each section comprises a single piece of leather which is open, and at intervals the edges are provided with perforations *s*, which register with the female-screw-threaded perforations in the brace-frame when the two edges

of the casing are lapped over one another and upon the frame.

C C designate clamping-plates which are curved from top to bottom to conform to the shape of the brace-frame, and each is provided with perforations *t*, that register with the perforations in the edges of the casing and the perforations in the frame, and at the upper end of these clamping-plates are formed perforations *u*, through which passes the pivotal bolt by which the two halves of the collar are hinged to one another.

Within the casing is arranged an air-sack D, which is inflated through the tube *v* by an air-pump in the usual manner, and the air is forced to the opposite section through a communicating passage in the sack at the top thereof, the two sides and neck of the sack being constructed of a single piece.

E E designate the tug-eyes secured to the clamping-plates and frame, and *w w* are the rings for the reins, the rings being screwed into the brace-frame, where they are held firmly in place.

It will be observed from the above description, when taken in connection with the annexed drawings, that after placing the inflatable sack and the hinged brace-frame within the casing the two edges of the casing are lapped over one another and upon the brace-frame, after which the outer plates are placed in position, covering the lapped edges of the casing, when the screws *x x* are screwed through said plates, casing, and into the brace-frame, thereby clamping the edges of said casing between the outer plates and inner sectional brace-frame. The broad plates at the top serve a double purpose—viz., that of a hinge and to broadly span from the front to the rear at the top of the collar.

In locking the two sections of the collar together the lower portions are brought together, when the tubular portion having the spring catch or hook will enter the opposite tubular portion and the hook will engage the opening *p*, thereby firmly holding the two free ends of the collar in a locked position, and when it is desired to unlock the collar the spring-catch is pressed inward and the hooked end thereof is disengaged from the opening *p* in the tube, when the collar may be opened, the two sections swinging on their hinge at the top of the collar, and the female-screw-threaded plate having the light filling in the recessed portion thereof not only forms an excellent hinge for the collar, but is readily attached to the screw-threaded upper end of the brace-bar.

Between the inner brace-frame and the outer plate is secured a T-shaped plate *z*, having perforations through which pass the screws which hold the outer clamp-plate in position, and a perforation through which passes the outer end of the inflating-tube, which plate is designed to retain said tube in position and prevent displacement of the same.

Within the rubber sack is arranged a filling *e'*, that lies adjacent to the tubular frame, leaving a space between the loose filling and the rear portion of the casing, which is designed to protect the animal from pressure of the brace-frame should the collar become punctured or the air escape therefrom through any reason whatever, said filling being inclosed within a casing or sack *e''*, thus providing the collar with means whereby the collar is rendered serviceable under all circumstances, and a collar as herein described is durable, soft, and easy to the neck and shoulders of an animal and ornamental as well as cheap to manufacture.

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

1. In a pneumatic horse-collar, the combination with the inflatable sack, hollow brace-frame, casing, and loose filling, of the clamping-plates C, C, having the series of perforations to receive the fastening-screws, and pivoted to one another at their upper portion by the bolt *g*, and means substantially as described for locking the two sections of the collar together at the lower portion thereof.

2. In a pneumatic horse-collar, the combination with the casing, inflatable sack, hollow brace-frame, clamping-plates and hinge-plates, of the fastening-screws, the inflating-tube and the T-shaped plate *z*, having perforations to receive the fastening-screws and inflating-tube, substantially as described.

3. In a pneumatic horse-collar, the combination with the sack, casing, hollow brace-frame, and clamping-plates, of the loose filling, arranged within the casing and to one side of the center of the interior thereof, providing an air-space between the rear portion of the collar and filling, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK RICHARD BROOKE.

Witnesses:

THEODORE F. HUMPHREY,
CHAS. C. HOGE.