

(No Model.)

G. H. MACKAY.
HORSE COLLAR.

No. 551,085.

Patented Dec. 10, 1895.

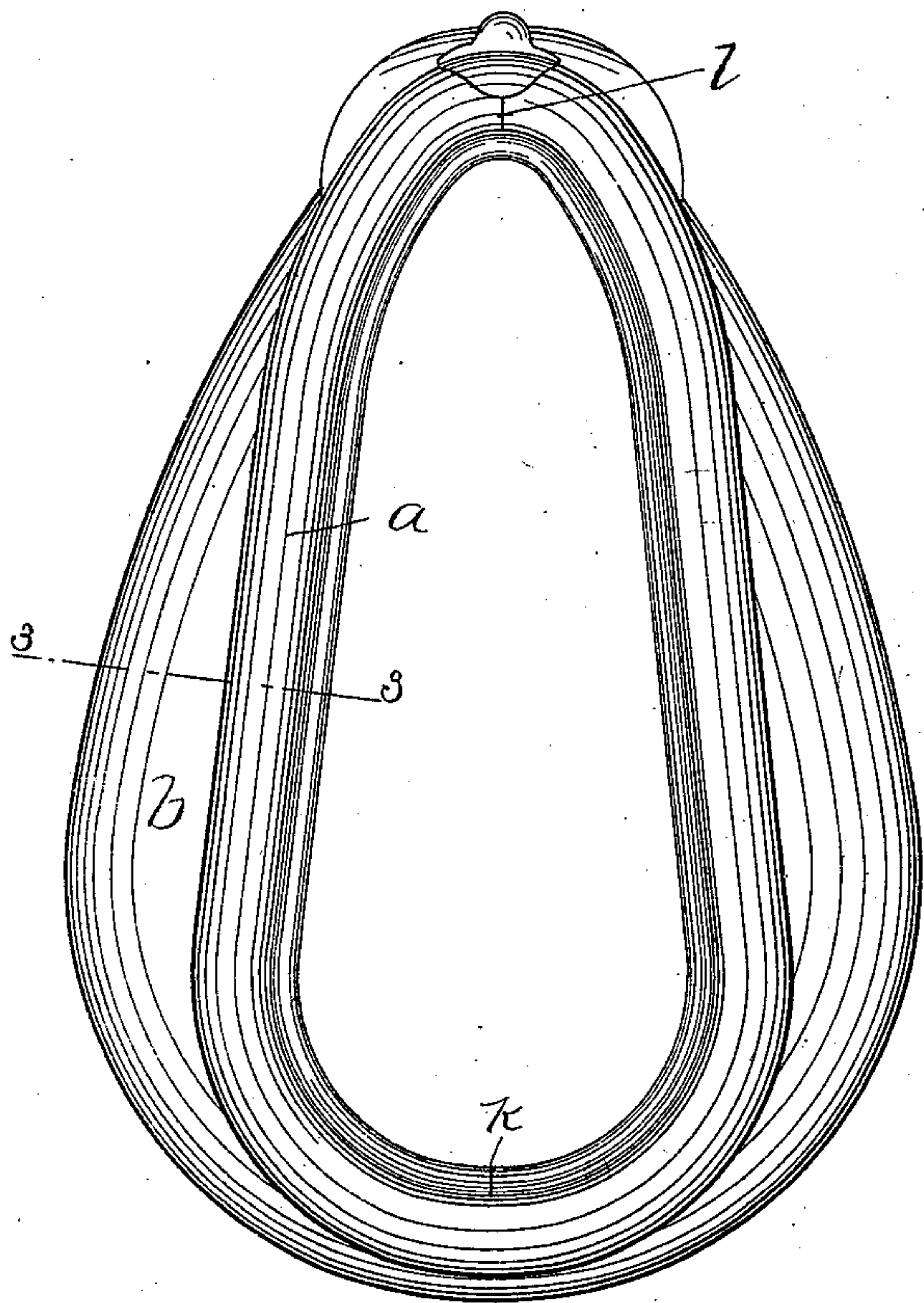


Fig. 1.

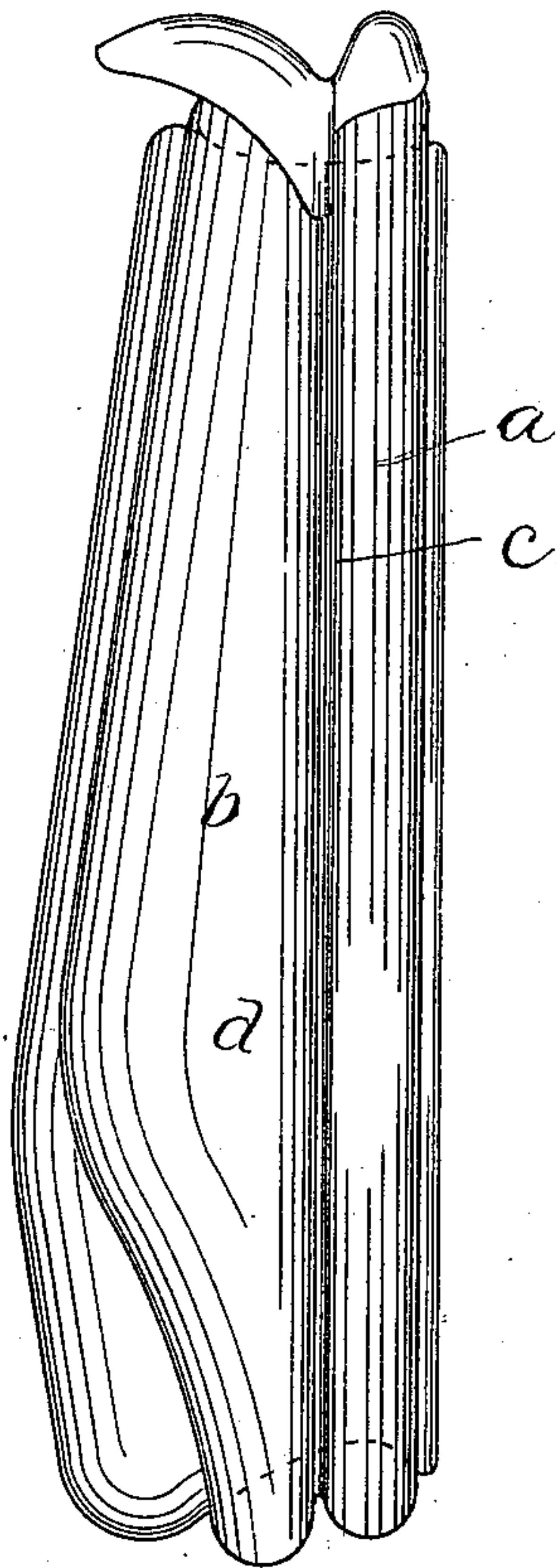


Fig. 2.

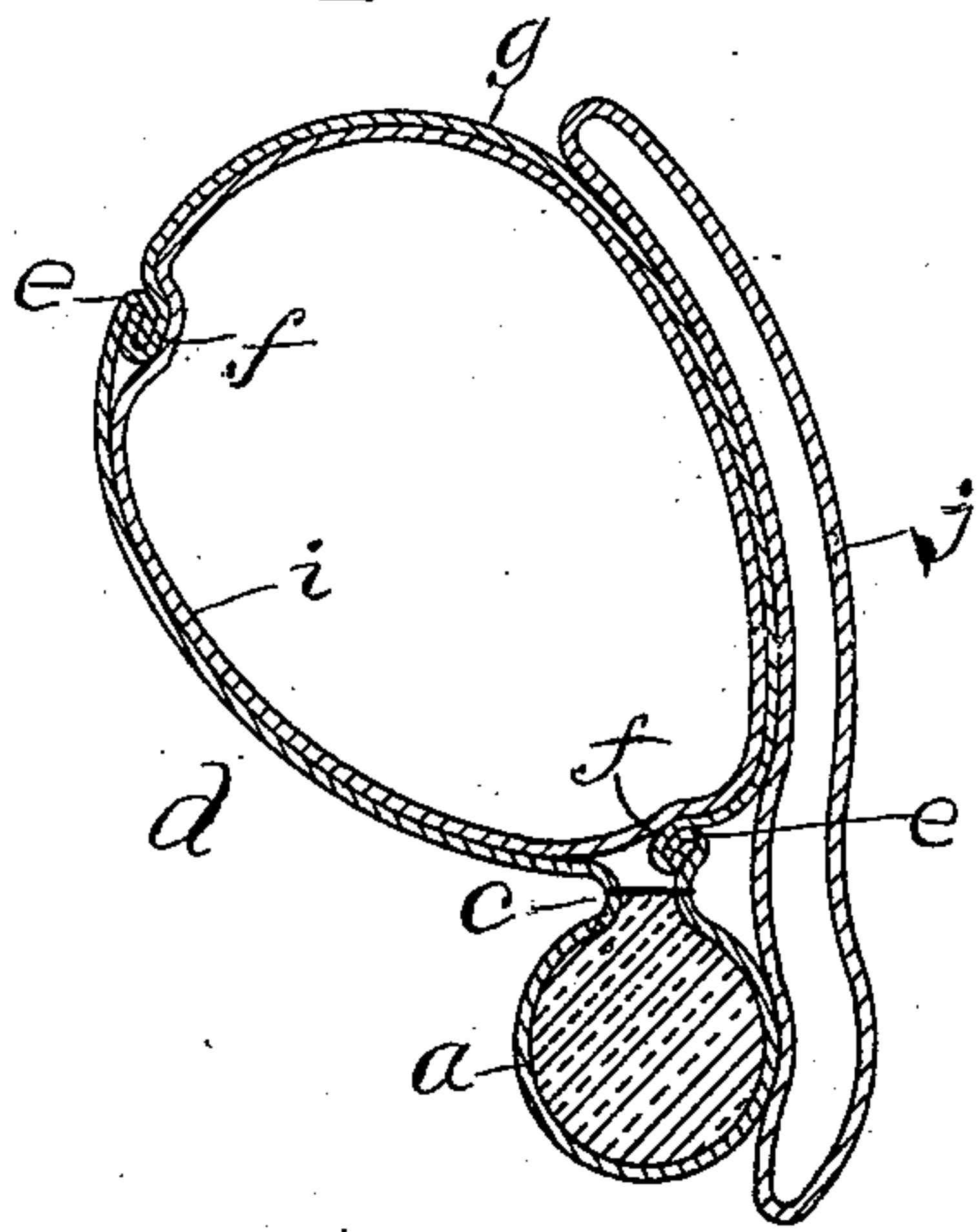


Fig. 3.

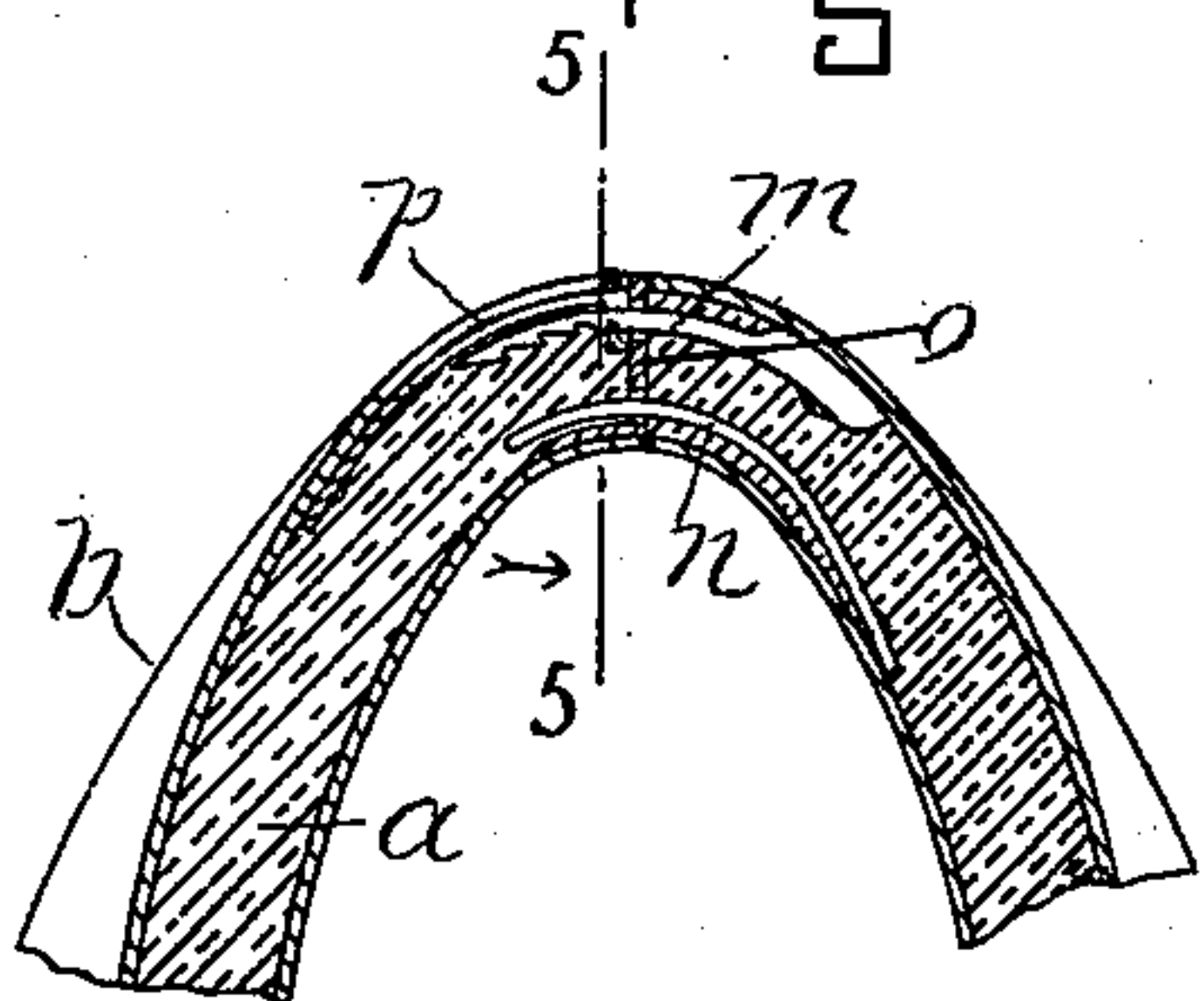


Fig. 4.

WITNESSES.
Matthew M. Blunt.
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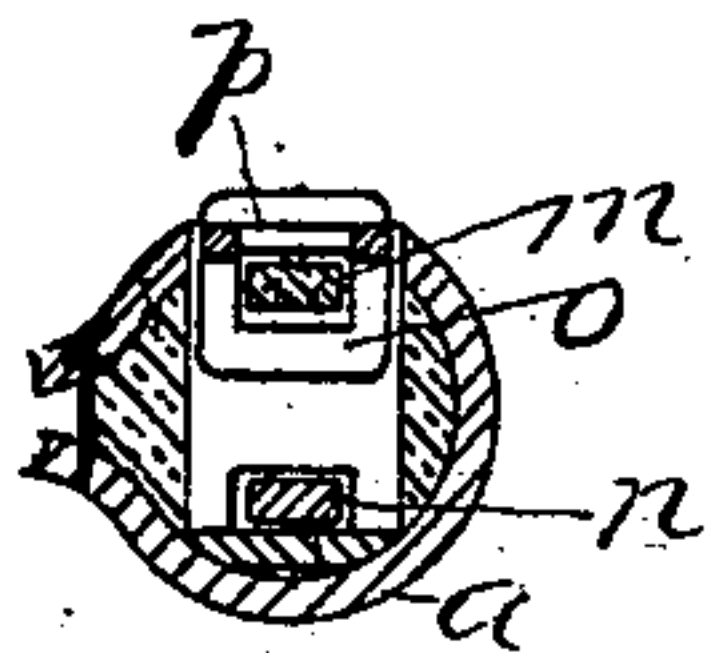


Fig. 5.

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UNITED STATES PATENT OFFICE.

GEORGE H. MACKAY, OF SALEM, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF
TO JOEL E. RICHARDSON, OF SAME PLACE.

HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 551,085, dated December 10, 1895.

Application filed November 15, 1894. Serial No. 528,950. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. MACKAY, of Salem, in the county of Rockingham and State of New Hampshire, have invented certain new and useful Improvements in Horse-Collars, of which the following is a specification.

This invention has relation to horse-collars and sweat-pads for light and heavy draft purposes; and it has for its object the improvement of that portion of such devices which receives the draft-bearing, so as to distribute the same evenly and without galling, chafing, or other harmful effect upon the shoulders or other parts of the horse's body.

The manner in which I attain the objects of my invention and in what the invention particularly consists will be set forth in the following specification, and pointed out in the claim hereto appended.

Reference is to be had to the annexed drawings and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the said drawings, which show a form and arrangement of horse-collar and sweat-pad in which the invention may be embodied, Figure 1 is a front view of the invention, showing the collar and sweat-pad used conjointly. Fig. 2 is a side elevation of the same. Fig. 3 is a cross-sectional view taken on the line 3 3 of Fig. 1. Fig. 4 is a vertical sectional view taken through the upper part of the roll in front of the hame-crease and showing the manner of connecting the upper ends of the collar and also a means for adjusting the article to necks of varying sizes. Fig. 5 is a transverse sectional view taken on the line 5 5 of Fig. 4.

In the drawings, *a* designates the face-roll, *b*, the bearing-pad, and *c* the hame-crease, of the collar. The casing or covering *d* for the roll *a* and the outer face of the bearing-pad *b* may be composed of suitable sheet metal, such as aluminum alloyed with steel or other metal, and at its edges it may be bent over so as to form a bight *e*, in which a bight *f*, formed in the edges of the covering for the inner face *g* of the said pad may be caught and held, as is clearly portrayed in Fig. 3. This inner fac-

ing may be composed of leather or other similar soft flexible material.

It is not essential that the edges of the inner and outer facings of the casing or covering *d* should be connected as described, since it is obvious that they may be united in other ways as well suitable. I may connect the opposing sides of the covering for the face-roll *a* just below the same with any means answering the purpose, as shown at *g*, so as to assist in forming and maintaining the hame-crease *c*, and the roll *a* may be stuffed with felt, straw, or other material that may be found suitable to its use.

Within the bearing-pad *b* I arrange an air-tight pouch or bag *i*, of rubber or similar elastic material properly shaped, and provide it with means (not shown) at any suitable point, whereby it may be inflated to any degree of pressure within its capacity, so as to fill out the pad *b* and suit it to fit upon and conform to the form of the horse's neck when the collar is in use. By this means a perfectly-fitting collar is provided and one that will not chafe, gall, or otherwise injure or harm the horse wearing it, and to assist toward these ends I may provide a sweat-pad *j*, consisting of an air-tight rubber bag or cushion adapted to be inflated with air or other gas to any needed degree of pressure, which pad *j* may be arranged beneath the collar, as shown, or as sweat-pads are usually arranged and worn.

It is obvious that my improved horse-collar and sweat-pad may be used conjointly or separately—that is to say, in some cases the collar may be employed without the sweat-pad and in others the pad may be used with horse-collars of different construction; but the two are capable of use together, as shown.

By constructing the collar with the face-roll covered with a metallic external casing which extends partially around the bearing-pad and forming the remainder of the casing of leather I accomplish important results, which perhaps would not be apparent upon a first inspection. In the first place I form a rigid hame-crease into which the hames will fit without burying themselves in the bearing-pad, and again I form such a strong external covering by the use of the metal that when there is a heavy draft upon the collar a rupture of

the pad is prevented, while at the same time the portion of the pad which rests against the horse is yielding, so as not to chafe or gall. The collar has all the advantages of a comparatively rigid stuffed collar, without the disadvantageous results produced by the use thereof.

The sweat-pad may be divided at its lower end, as at *k*, to enable it to be put over and upon the horse's neck without slipping it on over his head, and for the same purpose the collar may be divided at its upper end, as at *l*, to permit it to be separated at said point and so put around the neck from below upward.

To enable the meeting ends of the collar to be connected and to adjust them to make the collar fit necks of varying sizes, I provide means of varying form, that shown in the drawings consisting of spring-fingers *m n*, secured to one end, and which are adapted to pass through holes formed in a clip *o*, supported on a spring-strip *p*, connected with the other end. One or both of said fingers (one as shown in the drawings) may be provided with teeth to engage the clip *o* and hold the fingers latched in place. The collar may be rendered smaller or larger by pressing the fingers inward to a greater or less distance, and when it is wanted to disengage the fingers the end of the strip *p* or clip may be pressed upon from above and the ends of the collar pulled

apart, as will be readily understood without further description.

Having thus explained the nature of the invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

The herein described horse collar comprising in its construction a stuffed roll confined within a metallic casing, and a draft bearing pad separated therefrom so as to form a hame crease, said metallic casing being extended so as to partially cover the external surface of the pad, and the portion of the pad which bears against the draft animal being covered with a leather casing, suitably joined at its edges to the metal casing, so as to form a continuous covering for the stuffed roll and the bearing pad; said bearing pad having an air inflated tube therein, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 26th day of September, A. D. 1894.

GEORGE H. MACKAY.

Witnesses:

ARTHUR W. CROSSLEY,
C. C. STECHER.