

No. 791,788.

PATENTED JUNE 6, 1905.

C. T. HOWARD.
PNEUMATIC HORSE COLLAR.
APPLICATION FILED APR. 28, 1902.

Fig 1

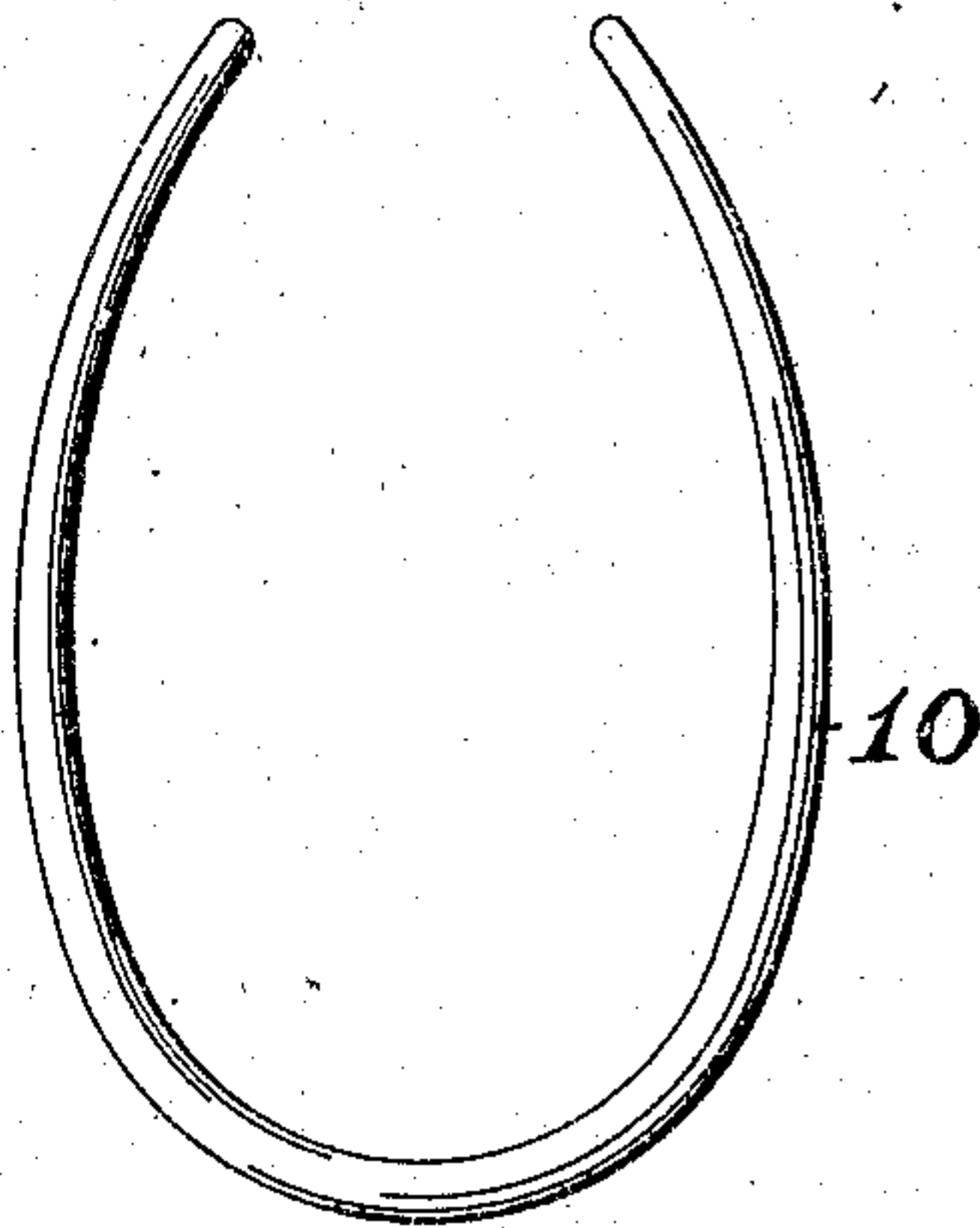


Fig 2

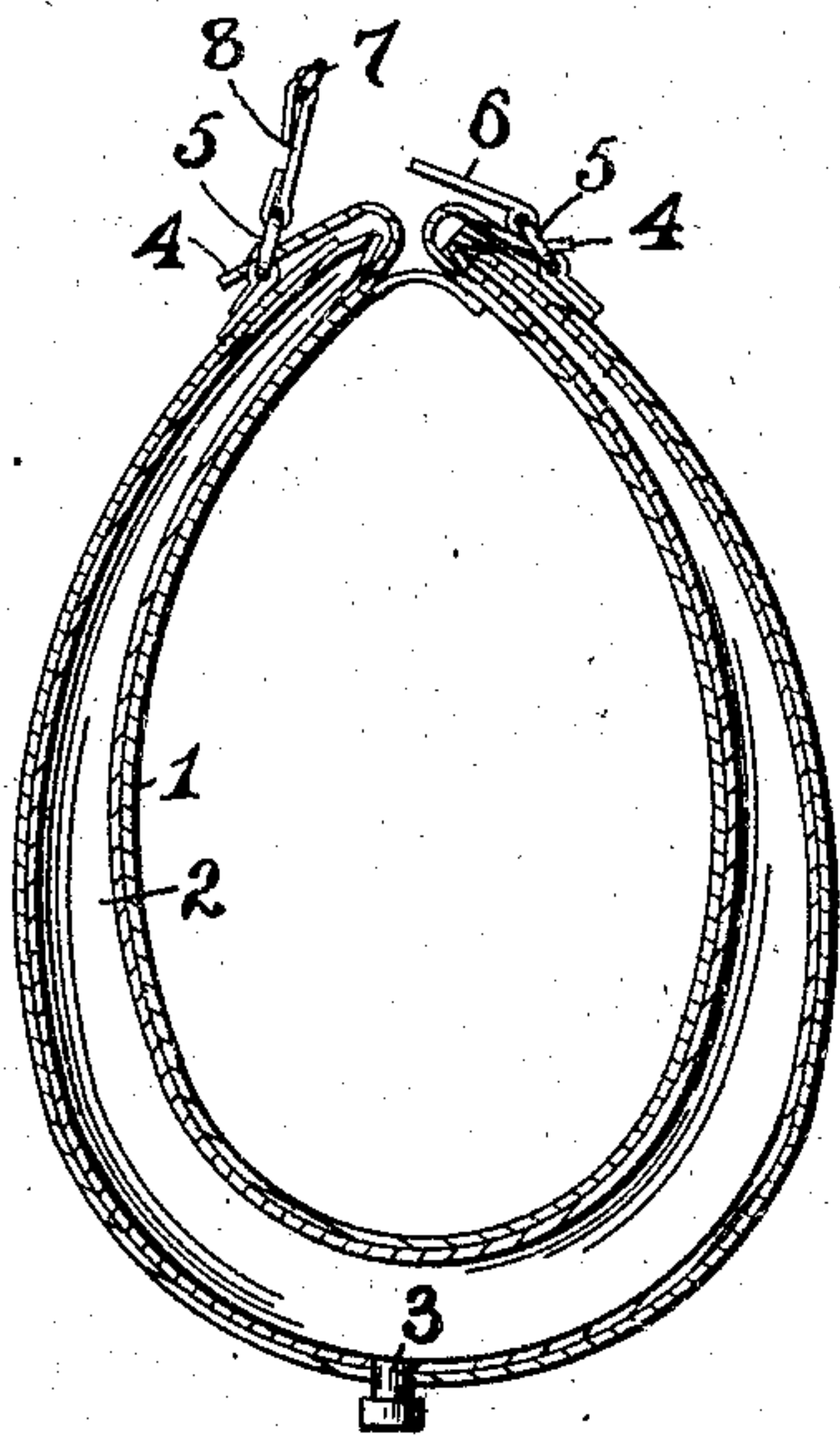


Fig 4

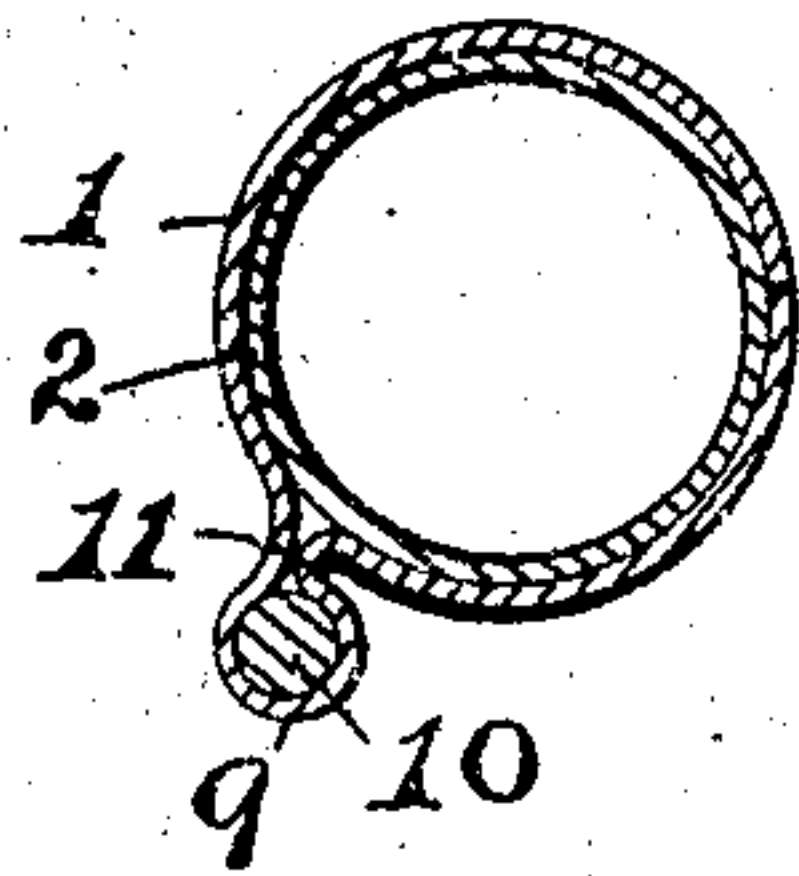
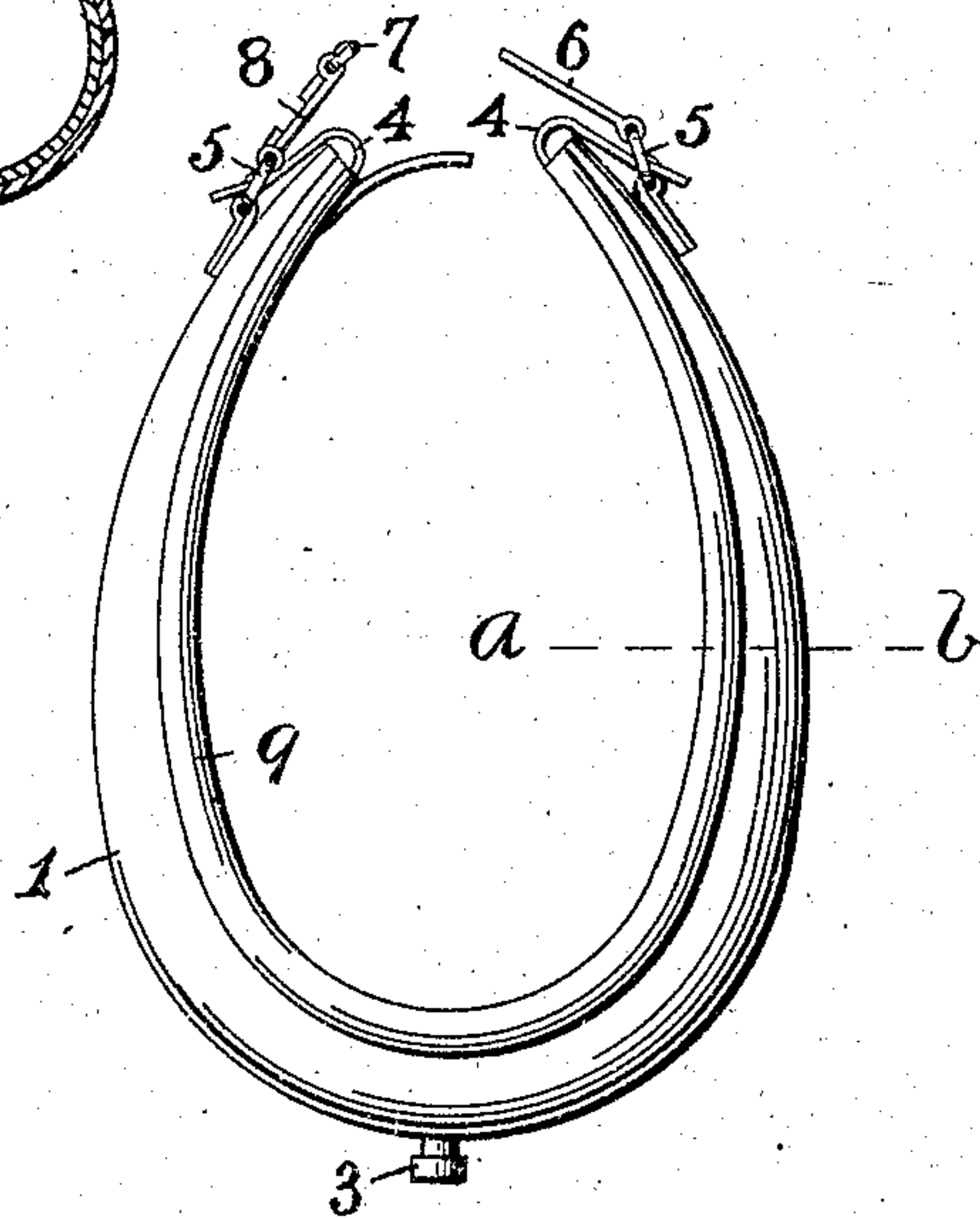


Fig 3



WITNESSES:

C. B. House
J. O. Edson.

C. T. Howard, INVENTOR,

BY
Warren D. House,
His ATTORNEY

UNITED STATES PATENT OFFICE.

CLARENCE T. HOWARD, OF ROSEDALE, KANSAS, ASSIGNOR OF ONE-HALF
TO JAMES O. McVEY, OF KANSAS CITY, MISSOURI.

PNEUMATIC HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 791,788, dated June 6, 1905.

Application filed April 28, 1902. Serial No. 105,042.

To all whom it may concern:

Be it known that I, CLARENCE T. HOWARD, a citizen of the United States, residing in Rose-
dale, in the county of Wyandotte and State of
5 Kansas, have invented a new and useful Im-
provement in Pneumatic Horse-Collars, of
which the following is a specification, refer-
ence being had therein to the accompanying
drawings, forming a part thereof.

10 My invention relates to improvements in
pneumatic horse-collars.

The object of my invention is to provide a
horse-collar that may be inflated similarly to
a bicycle-tire.

15 My invention provides, further, means by
which the horse-collar may be retained in
shape when inflated irrespective of the load
that may be brought to bear upon it.

20 My invention has for its further object the
providing of a resilient bow which is placed
in the outer wale or roll casing for firmly re-
taining the inflated collar in shape.

25 My invention provides certain other novel
features of construction hereinafter fully de-
scribed in the claims.

30 In the accompanying drawings, which illus-
trate my invention, Figure 1 is a front eleva-
tion view of a resilient bow. Fig. 2 is a vertical
sectional view of the inflatable portion of the
collar. Fig. 3 is a front elevation view of
the collar. Fig. 4 is a cross-section taken on
the dotted line *a b* of Fig. 3.

Similar characters of reference indicate
similar parts.

35 1 indicates the hollow body of the horse-
collar, made, preferably, of leather and of the
ordinary shape, but provided with open ends
for the insertion of an inflatable tube 2, con-
structed, preferably, of rubber and having
40 closed ends. The tube 2 may be similar in
construction to an ordinary inner tube of a
bicycle-tire. An inflating-valve 3, construct-
ed similarly to valves used for this purpose, is
secured at its inner end to the interior of the
45 tube 2 and extends through the wall 1 of the
body of the collar to the exterior thereof.
This valve 3 is preferably located in the lower
end of the collar, as shown in Figs. 2 and 3.
The open ends of the body of the collar are

adapted to be closed after the inner tube has 50
been inflated by the two flaps 4, respectively.
Each of said flaps is secured at its inner end
to the inside wall of the collar. The outer end
is adapted to engage a buckle 5 of ordinary
construction secured one each upon the outer 55
wall near each end of the body of the collar.
The ordinary strap 6 and buckle 7 for holding
the collar in the closed position are connected,
respectively, to the two buckles 5, the strap
6 being connected directly to the buckle at that 60
end of the collar and the buckle 7 connected,
by means of a strap 8, to the other buckle 5.

The body of the collar on its front side is
shaped to form the casing of the outer wale
or roll 9, which is of the ordinary shape. 65
Within the casing of the roll 9 when the col-
lar is constructed is placed a bow 10, which
is sufficiently resilient to enable the collar be-
ing opened at its upper end, so that the col-
lar may be slipped upon a horse's neck, but 70
which is sufficiently rigid to retain the body
of the collar in proper shape when pressure
is placed upon it in the drawing of a load. I
prefer to make the bow 10 of some tough
wood, such as hickory; but it may be made of 75
other materials, such as a tube of steel, which
will possess considerable rigidity and will
yet yield sufficiently for the purpose of open-
ing the collar. In constructing the collar,
the leather forming the body 1 and the roll 80
9 is preferably formed closely around the
bow 10 and sewed where the roll joins the
body at 11. The two free edges of the collar
may then be sewed together in the usual man-
ner, thus forming the hollow body. The 85
flaps 4 are for the purpose of closing the ends
of the collar, so as to permit the insertion and
withdrawal of the inner tube and also to pre-
vent its working out at the ends.

In operating my invention, the parts having 90
been assembled as already described, the tube
2 is inflated with air through the valve 3, af-
ter which the ends are closed by securing the
straps 4 to their respective buckles 5. The
collar may then be applied to a horse's neck 95
in the usual manner.

In drawing a load pressure of the hames
upon the body of the collar when the roll-cas-

ing is filled with a pliable substance, such as hair or straw, will cause the body of the collar to work out forward beneath the hames, as sufficient rigidity is not afforded by such a filling to preserve the shape of the collar. With the use of a stiff bow the inflated collar is held firmly in its proper shape. As the roll becomes worn through due to abrasion and wear, a filling of hair, straw, or other substance composed of small particles will work through the openings made by the wearing of the surface and the collar will soon be unsupported at all by the roll, owing to the loss of the portions of the filling. With a collar having the stiff bow of a single piece the wearing through of large holes in the roll-casing will not prevent the collar retaining its shape. The time of service of a collar provided with my invention is thus greater than with collars in which the roll is filled with sawdust, hair, or straw.

Various modifications of my invention may be made without departing from its spirit.

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

1. A horse-collar comprising a hollow body, provided with open ends, releasable means for securing to each other the said ends, two flaps secured respectively to and adapted to cover the said open ends, an inflatable tube located in the said hollow body, and means by which the said tube may be inflated, substantially as described.

2. A horse-collar comprising a hollow body, provided with open ends, two flaps secured respectively to and adapted to cover said open ends, an inflatable tube located in the said hollow body, and a slightly-resilient bow secured to the said body, substantially as described.

3. A horse-collar comprising a hollow body provided with open ends, two flaps secured respectively to and adapted to cover the said open ends, an inflatable tube located in the said hollow body, a hollow roll or wale connected with the inflatable body, and a slightly-resilient bow disposed in the said roll or wale, substantially as described.

4. In a horse-collar, the combination with

a hollow body, of releasable means for securing to each other the ends of said body, two flaps secured respectively to the ends of the body and adapted to close the said ends, an inflatable tube located in said hollow body and means for securing the free ends of the said flaps when in the closed position, substantially as described.

5. In a horse-collar, the combination with a hollow body provided with open ends, of an inflatable tube located in said hollow body, two flaps secured respectively one at each end to the said hollow body and adapted to be swung to cover said open ends, means for securing the free ends of the said flaps when in the closed position, a hollow roll connected with the said body, and a slightly-resilient bow disposed in the said hollow roll, substantially as described.

6. In a horse-collar, the combination with a hollow body provided with open ends, of an inflatable tube located in said hollow body, two flaps secured one to each end of the body and adapted to be swung to cover said open ends, two buckles secured one to each end of the body and adapted respectively to engage the said flaps, two straps secured one to each of said buckles, and a buckle mounted on one of said straps and adapted to be engaged by the other strap, substantially as described.

7. In a horse-collar, the combination with a hollow body provided with open ends, of an inflatable tube located in said hollow body, two flaps secured one to each end of the body and adapted to be swung to cover said open ends, two buckles secured one to each end of the body and adapted respectively to engage said flaps, two straps secured one to each of said buckles, a buckle mounted on one of said straps and adapted to engage the other strap, and a slightly-resilient bow secured to and retaining the body in proper shape, substantially as described.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

CLARENCE T. HOWARD.

Witnesses:

WARREN D. HOUSE,
G. W. DUVALL.