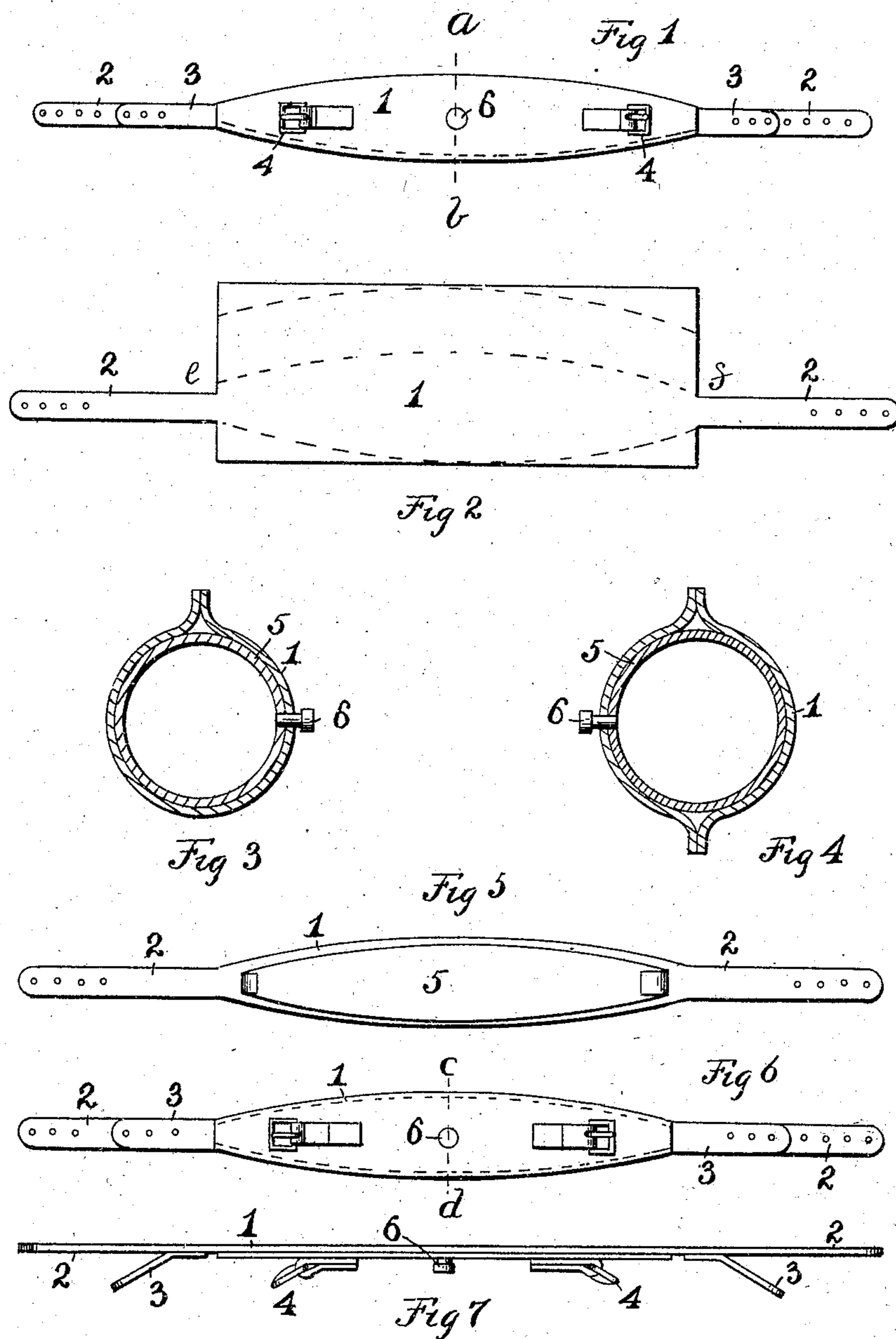


No. 791,787.

PATENTED JUNE 6, 1905.

C. T. HOWARD.
PNEUMATIC BREAST STRAP.
APPLICATION FILED APR. 28, 1902.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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

PNEUMATIC BREAST-STRAP.

SPECIFICATION forming part of Letters Patent No. 791,787, dated June 6, 1905.

Application filed April 28, 1902. Serial No. 105,041.

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 Breast-Straps, 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 breast-straps.

The object of my invention is to provide a
breast-strap that is cheap to manufacture,
efficient in use, and in which the inflating-
15 tube may be easily inserted or withdrawn
therefrom.

My invention provides, further, means by
which the inflatable tube may be securely re-
tained in position, thus preserving the breast-
20 strap in its proper form when in use.

Other features of novelty are hereinafter
fully described in the claims.

In the accompanying drawings, illustrative
of my invention, Figure 1 is a front elevation
25 view of a form of my invention in which the
body is made from a single piece of leather.
Fig. 2 is a plan view of a blank, showing the
form of the body when made from one piece
of leather and before trimming. Fig. 3 is a
30 cross-section taken on the dotted line *a b* of
Fig. 1. Fig. 4 is a cross-section taken on the
dotted line *c d* of Fig. 6. Fig. 5 is a front
elevation view of a modification of my inven-
tion in which the body is formed of two
35 pieces, one piece and the securing-flaps being
removed in this view. Fig. 6 is a front ele-
vation view of this modified form of my in-
vention. Fig. 7 is a top view of the same,
showing the breast-strap deflated.

40 Similar characters of reference indicate
similar parts.

Referring particularly to Figs. 1, 2, and 3,
1 indicates the body, preferably of leather
and made in one piece, the two sides being
45 arcuate in form, the ends being open and pro-
vided, respectively, with the projections 2,
preferably an integral part of the body and
forming the straps which connect the breast-

strap with the remainder of the harness. Se-
cured at their ends to the body 1 and disposed 50
one opposite each end of the body are the flaps
3, which are adapted to be folded over the
open ends of the body and engage, respec-
tively, the buckles 4, which are secured to the
front side of the body. The inflatable inner 55
tube 5 is formed, preferably, of rubber and
may be constructed substantially like an inner
tube of a bicycle-tire. The ends of the inner
tube 5 are closed, and when the tube is placed
within the body the ends may be folded back, 60
as in Fig. 5. In order to inflate the tube 5,
an ordinary inflating-valve 6 is provided on
the forward side of the tube 5 and extends
through an opening provided therein to the
exterior of the body 1. In constructing the 65
body of this form of my invention the two
curved edges of the body are sewed together.
The leather where it is folded over, as indi-
cated by the dotted line *e f*, is formed to sub-
stantially the same curve as the two joined 70
edges. It will be seen that the body when
inflated will be tapering toward the open end.
One object in thus tapering the ends is to pre-
vent the tube 5 from slipping lengthwise
within the body. The tube 5 when inflated 75
conforms to the interior shape of the body,
which is larger at the middle than at the end.

In the modification shown in Figs. 5, 6, and
7 the body is formed in two pieces with the
two side edges sewed together. The front 80
strip of leather in this form extends only to
the extensions or projections 2. In other re-
spects this modification is constructed like the
form shown in the first three figures.

In operating my invention the inflating-tube 85
is slipped into the body through one of the
open ends. The flaps 3 are then made to en-
gage the buckle 4, after which the tube 5 is
inflated through the valve 6. The breast-strap
may then be applied for its use in the ordi- 90
nary manner, the extensions 2 being used to
attach to the harness. By reason of the body
tapering at each end an unequal pressure ap-
plied to any portion of the breast-strap will
not cause the inflated tube to change its posi- 95
tion therein.

Other modifications than the one shown may be employed while retaining the spirit of my invention.

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

1. A breast-strap comprising a hollow body having open ends, a flap at each end adapted to close the said open ends, means for securing the flaps in the closed position, and an inflatable tube located within the said hollow body, substantially as described.

2. A breast-strap comprising a hollow body tapering toward the ends, the ends being open, a flap at each end adapted to close the said end, an inflatable tube located within the said hollow body and adapted to substantially fill the same when inflated, and means for securing the said flaps in the closed position, substantially as described.

3. In a breast-strap, the combination with the body of the strap comprising two parallel flat portions having their long edges secured together, the ends of said portions being open to admit an inflatable tube therethrough, of two flaps secured respectively to one portion of said body and adapted to be folded over the open ends of the body, means provided

on the other portion of the body adapted to engage the said flaps, and an inflatable tube located between the said two portions of the body, substantially as described.

4. In a breast-strap, the combination with the body of the strap comprising two parallel flat portions having two opposite edges secured together, the other two edges being left free to admit between the two portions an inflatable tube, one portion of the body having its ends projecting beyond the other portion and adapted to be secured to the remainder of the harness, of two flaps secured one to each projecting portion of the longer portion of the body and adapted to be swung over the free ends of the shorter portion of the body, means provided on said shorter portion of the body for engaging and securing the said free ends of the flaps, and an inflatable tube located between the two body portions, 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.