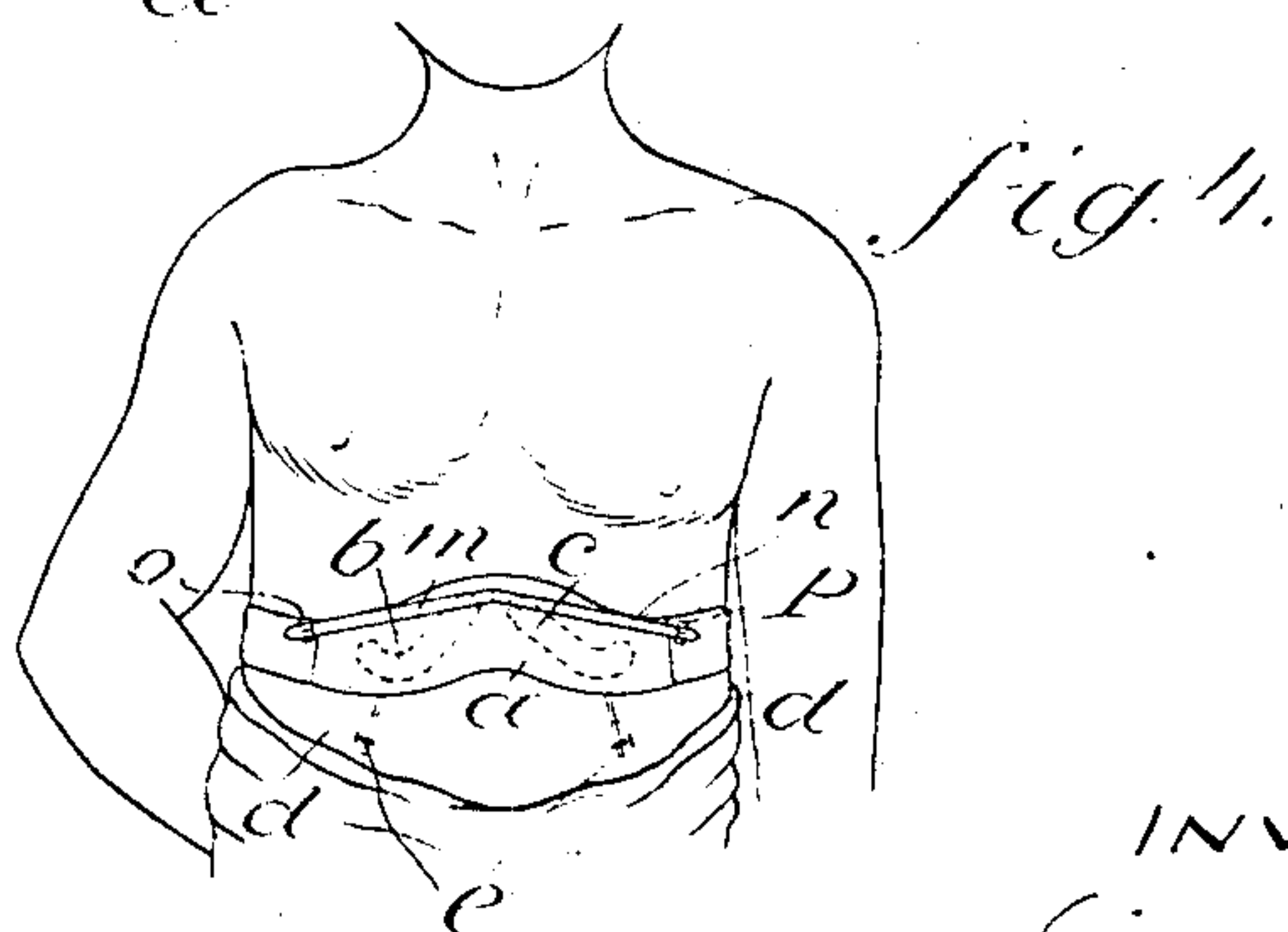
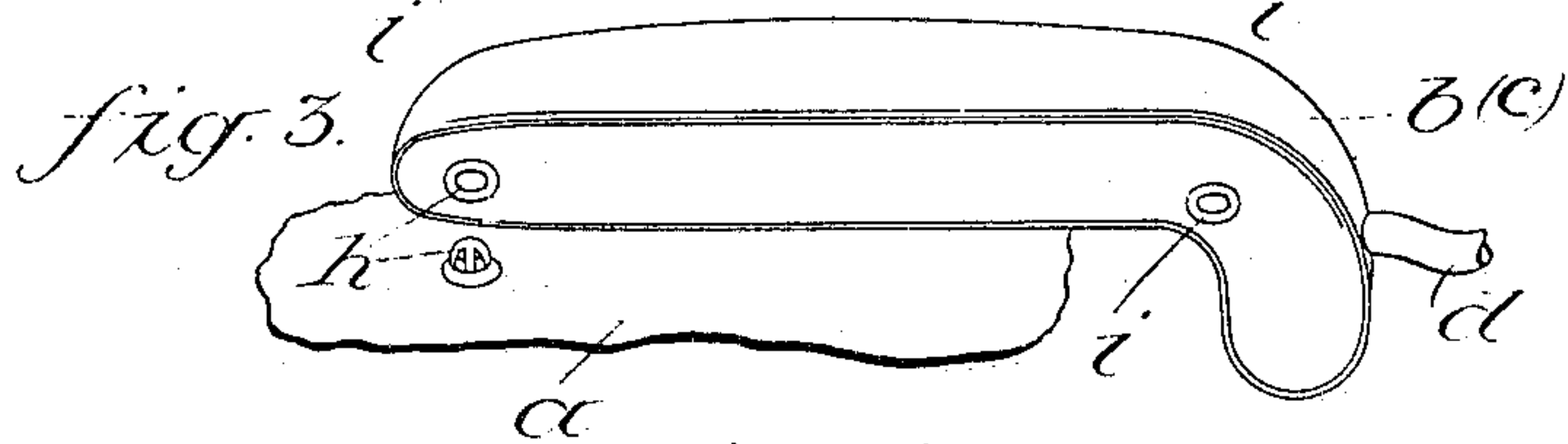
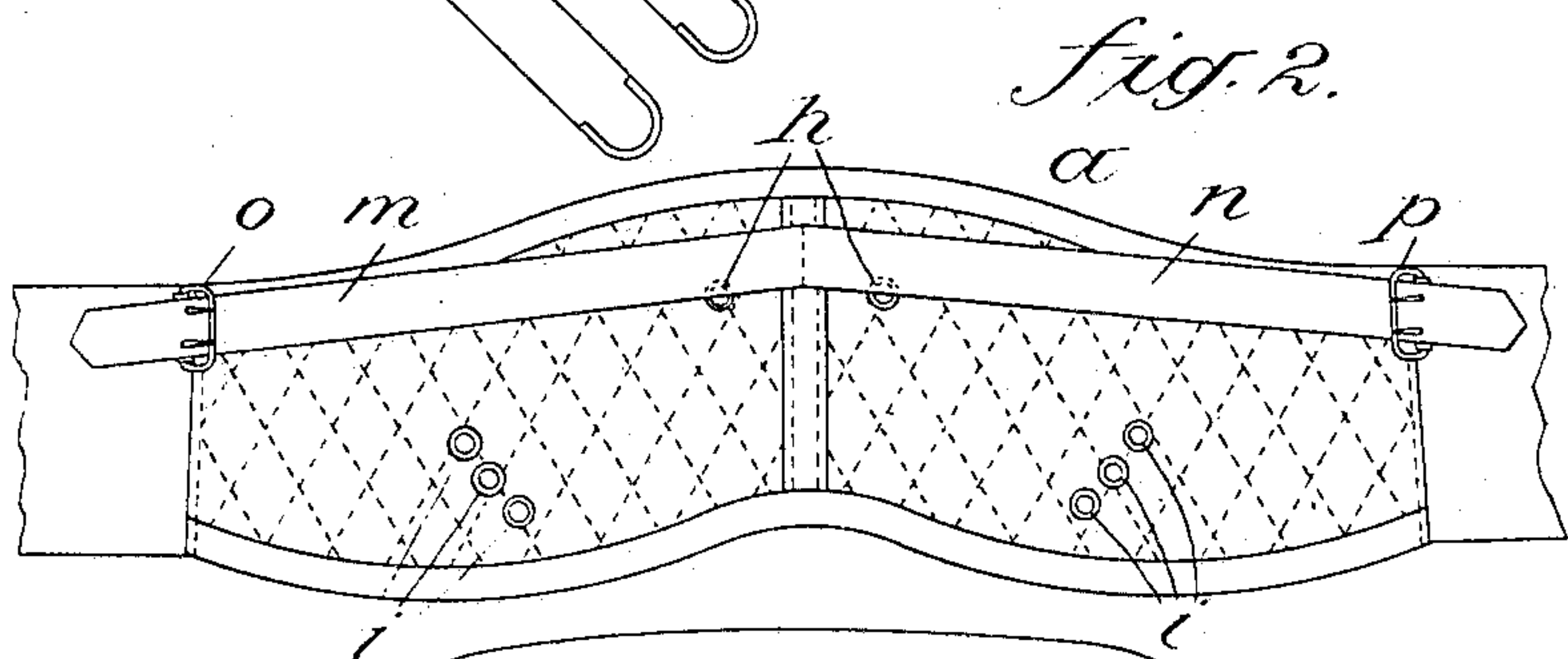
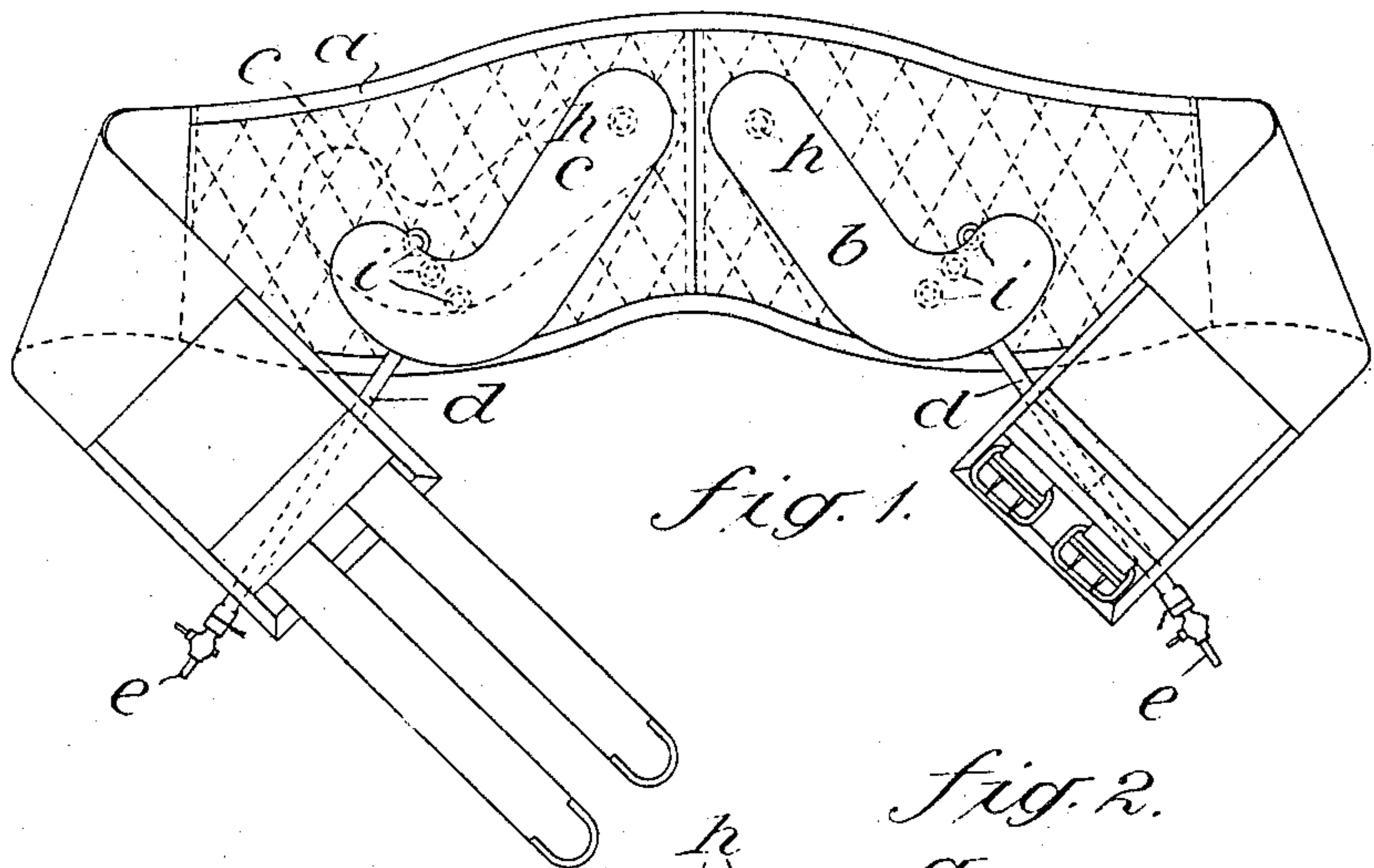


E. ABÉE.  
CARDIAC TRUSS.  
APPLICATION FILED DEC. 8, 1903.

NO MODEL.



WITNESSES

*K. M. Kuehne*  
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ATTORNEYS

# UNITED STATES PATENT OFFICE.

ERNST ABÉE, OF BAD-NAUHEIM, GERMANY.

## CARDIAC TRUSS.

SPECIFICATION forming part of Letters Patent No. 775,342, dated November 22, 1904.

Application filed December 8, 1903. Serial No. 184,324. (No model.)

*To all whom it may concern:*

Be it known that I, ERNST ABÉE, a subject of the Grand Duke of Hesse, residing at Bad-Nauheim, in the Grand Duchy of Hesse, in the German Empire, have invented new and useful Improvements in Cardiac Trusses, of which the following is a specification.

Cardiac trusses are already known by means of which pressing and lifting action can be exerted at both sides of the body on the soft parts below the arch of the ribs for the purpose of raising the heart and giving it a favorable position. For this purpose a girdle, belt, or the like has been provided with cushions or pads extending upward at an angle to each other and adapted to bear against the body below the arch of the ribs, being pressed to the same in suitable manner by means of the girdle. Such pads have hitherto been immovably secured to the girdle—that is to say, girdle and pads form, as it were, a single object or whole.

According to my invention I perfect this kind of cardiac truss by providing pads shaped to fit the arch of the ribs and capable of adjustment on the girdle, so that they may be set as required at whatever angle is formed by the ribs below which the pads are applied. In this manner the truss can be employed by very stout and by thinner persons alike.

One form of construction of the new truss is shown in the accompanying drawings, in which—

Figure 1 is a view showing more especially the inside of the appliance. Fig. 2 is a view showing the outside of the central portion of the same. Fig. 3 is a detail view, drawn to a larger scale, illustrating a method by which the pads may be secured to the girdle. Fig. 4 illustrates, on a small scale, the method of applying the truss to the body.

In the form of construction here illustrated the pads *b* are arranged separately from each other and each provided with a flexible pipe *c* with cock *e*, so that they may be distended,

and are secured to the belt *a* by snap button-fasteners. The fasteners *h* serve to attach the upper straight end of the pads, while the fasteners *i* provide for adjustable attachment of the pad turning on *h* as a pivot. (See dotted lines, Fig. 1.) By means of this truss not only can the thorax be lifted and supported, but pressure can also be exerted from below upon the diaphragm if the pad is adjusted at as large an angle as possible and then the entire truss strapped on correspondingly lower. A further advantage is that the left-hand pad can be applied alone, if desired, the right-hand one being simply removed. This is frequently very desirable—for instance, in cases of emphysema, in which, owing to enlargement of the liver, the pressure of the right-hand pad is painful for the patient.

On the outside of the girdle, preferably somewhat below the upper edge of the central portion, two straps *m n* and buckles *o p* may be provided. By adjusting the ends of the straps in the buckles to suit each particular case the upper or lower edge of the pad can then be pressed more or less firmly to the body.

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

In combination, a girdle, an elongated pad, a snap button-fastener connecting one end of said pad and girdle, and a socket on the other end of the pad adapted to engage any one of a plurality of snap button-fasteners on the girdle concentric with the fastener at the first-named end of the pad, substantially as described.

In witness whereof I have hereunto signed my name, this 21st day of November, 1903, in the presence of two subscribing witnesses.

ERNST ABÉE.

Witnesses:

OTTO HOHENENISER,  
ERNST ABÉE.