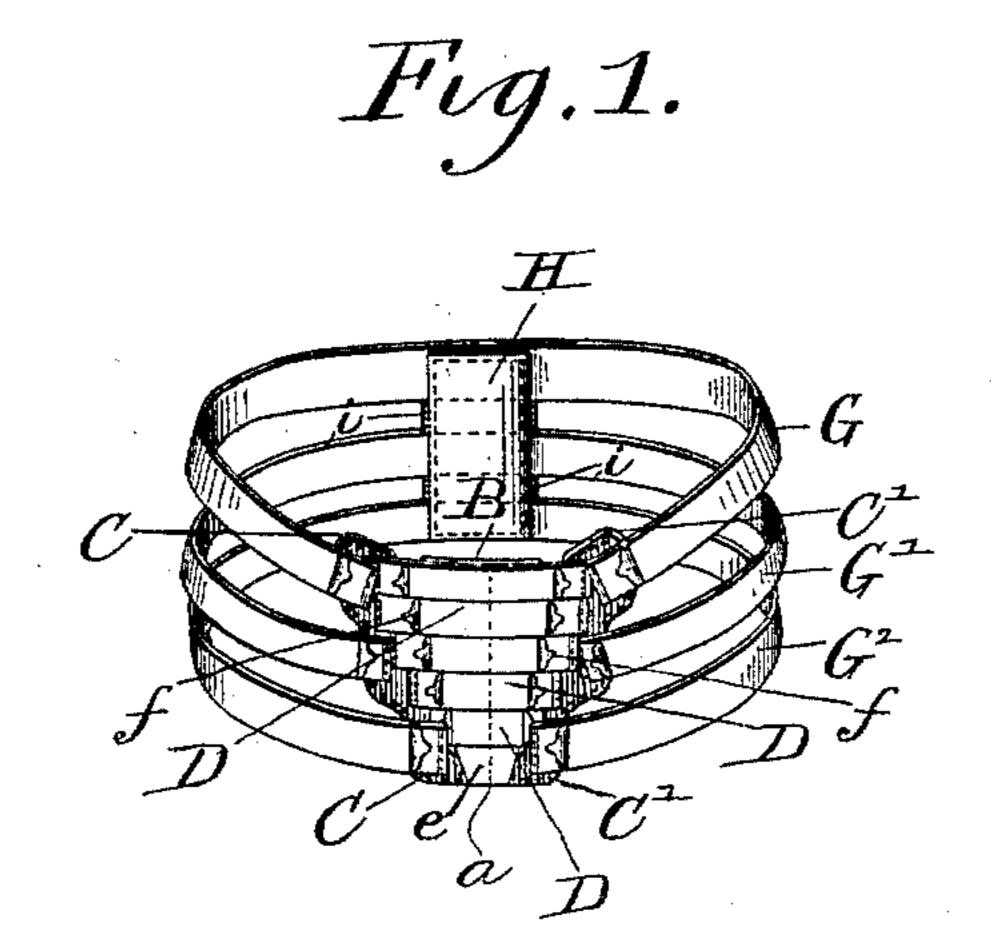
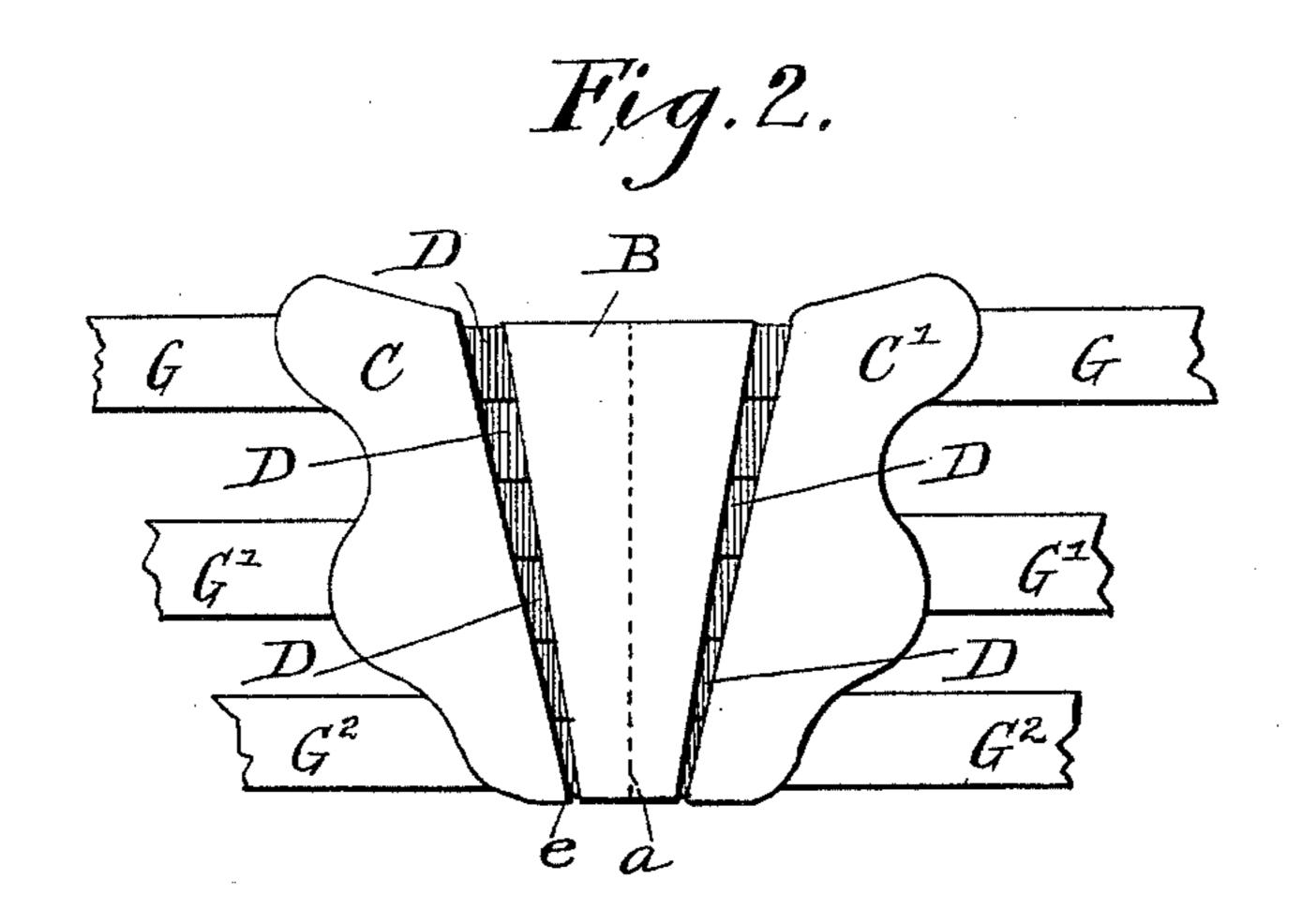
## J. A. MARVIN. ABDOMINAL SUPPORTER.

No. 497,803.

Patented May 23, 1893.





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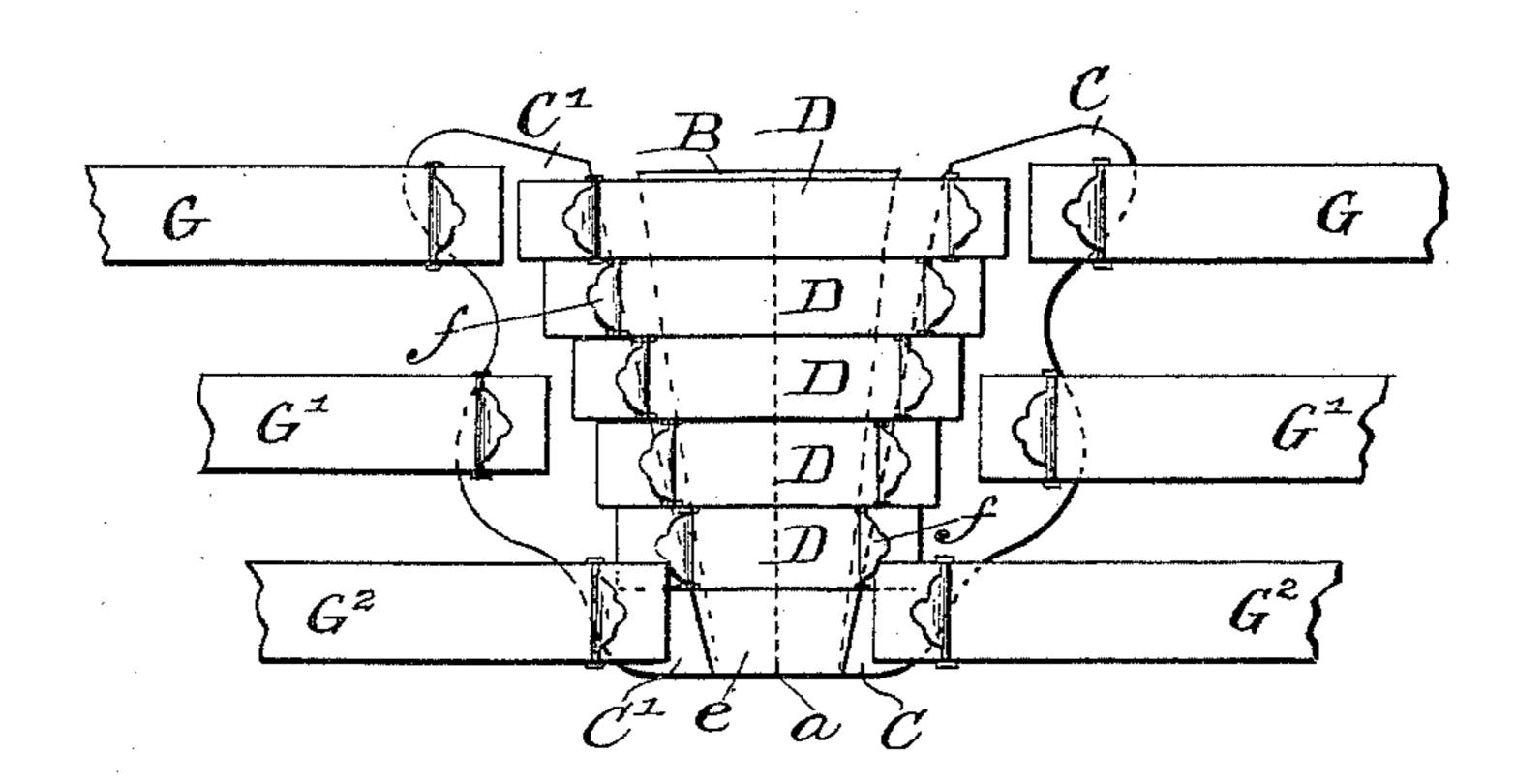
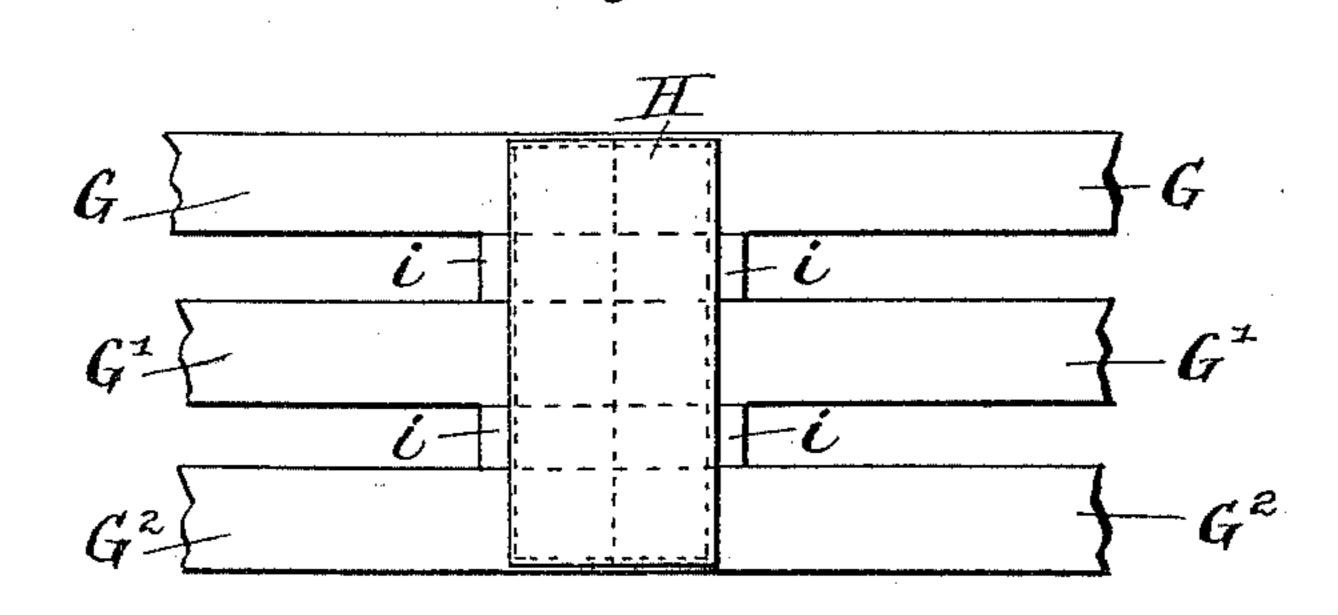


Fig. 4.



Witnesses Jast Blackwood PH. Heal John A. Marvin My Doolettel Ottorney

## United States Patent Office.

JOHN ALBERT MARVIN, OF LANSING, MICHIGAN.

## ABDOMINAL SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 497,803, dated May 23, 1893.

Application filed July 18, 1892. Serial No. 440,391. (No model.)

To all whom it may concern:

Be it known that I, John Albert Marvin, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Abdominal Supporters; 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.

My invention consists of an abdominal support, and its objects are a structure that can be easily adjusted to the form of the abdomen; to provide a hard yet flexible bearing that will firmly support the abdomen, especially a pendulent one, and to secure a support adjustable to any part so as to give to such part a sure and even pressure. Especially is the latter object desirable after laparotomy, when the wound needs to be closed and supported by a flexible hard bearing surface with a pressure that is even and constant.

25 My invention is illustrated in the accompanying drawings in which Figure 1 is a front view, in perspective of the entire structure; and Fig. 2, a similar rear view showing the back of the front pad and its construction; 30 Fig. 3, a front view in elevation of the front pad, being the reverse of Fig. 2, and Fig. 4, a rear view of the back pad, and its immediate connections.

Referring to the drawings, the front pad A, 35 is composed of three vertical pieces of flexible material B, C, C', made preferably of leather, on account of its combined stiffness and flexibility, and to the front of which are secured separate horizontal adjustable straps 40 D, composed preferably of elastic webbing. The straps D are secured to the center piece B of the pad, by a central line of stitching, a, and on either side of this central line the sides of the center piece B are left free and 45 disconnected from the webbing to give it greater flexibility. The two side vertical pieces C, C', are connected by a bottom piece of webbing e, to which they are stitched. The rest of the way up the side pieces are con-50 nected to the straps D by means of rivets on the side pieces and eye-links on the straps.

f, at their opposite ends by which they are adjusted. The side pieces are also by this arrangement rendered more flexible and the 55 center flexible piece is made to conform to the exact curvature of the abdomen.

It will be noticed that the front pad is much narrower at the bottom, than at the top, thus enabling one to bring it well down 60 on the lower part of the abdomen while the upper and broader part reaches out and supports the broad ligaments.

In some supports a single wide band is used which draws the hardest over the most promi- 65 nent part; but in my construction by having a solid flexible center perfectly formed to the abdomen by the adjustable narrow bands just described, one is enabled to better regulate the pressure, and with the side straps, to 70 lift up and carry the weight of the abdomen.

Pivoted at the top, center, and bottom sides of the side straps C, C', are body adjustable straps G, G', G<sup>2</sup>, provided with buckles. The opposite ends of these straps are attached to 75 a back pad H. This back pad is composed of a back piece of leather, having its flexibility maintained while a certain amount of stiffness is given it, by the elastic webbing straps K, K, K, and shorter pieces of webbing 80 i, i, placed between the former. The top body strap G, will be placed around the body above the hips, the center strap G' around the abdomen, and the lower strap G<sup>2</sup> below the hips. All the straps D, and G, G', G<sup>2</sup>, 85 are separately and independently adjustable to establish and maintain the pressure just where it is most needed.

Under or crotch straps may if desired be used in connection with this support attached 90 to convenient positions to front and back to hold the support down.

Having thus described my invention, what I claim is—

1. An abdominal support consisting of a 95 flexible front and back pad in combination with separate independently adjustable straps uniting the side pieces of which the front pad is composed, and separate independently adjustable body straps pivoted to the side straps 100 and secured to the back pad, substantially as described.

the side pieces and eye-links on the straps. 2. In an abdominal support a front pad. The straps D are also provided with buckles composed of vertical side pieces of flexible

material, and a vertical central piece of flexible material disconnected from the side pieces, in combination with separate horizontal ad-justable straps of flexible material to which 5 said side and central piece are secured, substantially as described.

3. In an abdominal support a front pad consisting of separate side pieces and a central piece, of flexible material, secured sepa-10 rately to a support of flexible material, in

combination with adjustable body straps pivoted to said side pieces, substantially as described.

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

JOHN ALBERT MARVIN.

Witnesses:

OSCAR S. CASE, R. L. RAMAGE.