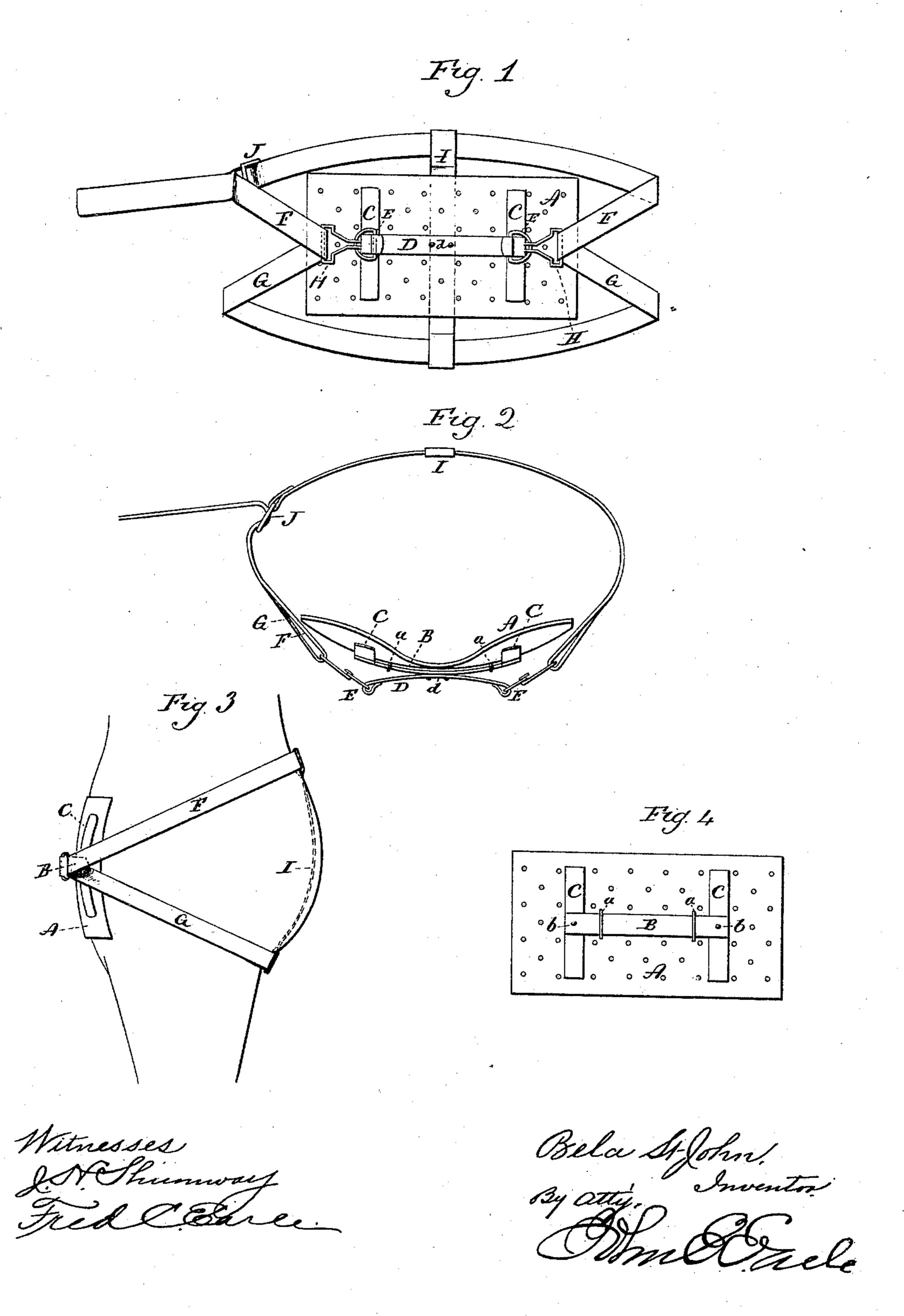
## B. ST. JOHN.

## ABDOMINAL SUPPORTER.

No. 396,962.

Patented Jan. 29, 1889.



## United States Patent Office.

BELA ST. JOHN, OF TORRINGTON, CONNECTICUT.

## ABDOMINAL SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 396,962, dated January 29, 1889.

Application filed November 19, 1888. Serial No. 291,270. (No model.)

To all whom it may concern:

Be it known that I, Bela St. John, of Torrington, in the county of Litchfield and State of Connecticut, have invented a new Improve-5 ment in Abdominal Supporters; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, to and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of the supporter complete; Fig. 2, a top view of the same; Fig. 3, a side view of a portion of the body with the 15 supporter attached; Fig. 4, a front view of the pad with the spring D removed, showing the

bar B as attached to the pad.

This invention relates to an improvement in that class of abdominal supporters which 20 consist of a pad adapted to rest against the abdomen, with straps around the body as a means for holding the pad, the object being to dispense with the strap which usually runs from the body between the legs, and yet se-25 curely hold the pad in its position; and it consists in the construction as hereinafter described, and particularly recited in the claims.

A represents the pad proper, which is made from leather or other suitable flexible mate-30 rial of a size according to the extent of the abdomen which it is desired to cover pad is perforated, as represented in Fig. 1, and, owing to its flexibility, it adapts itself to

the form of the abdomen.

On the outside of the pad A is a horizontal elastic metal bar, B, secured to the pad by means of loops a, (see Figs. 2 and 4,) so as to allow considerable longitudinal freedom to the bar. This bar extends to the right and 40 left from the center, and is provided at each end with a vertical spring, C. These springs are pivoted to the bar, as indicated at b, Fig. 4, and so that the springs may turn to the right or left, as occasion may require. These 45 springs are also curved vertically, as seen in Fig. 3.

D represents a longitudinal spring, which is riveted to the bar B at the center, as at d, Fig. 2, the spring D curving outward from the bar 50 B, as clearly seen in Fig. 2. Both ends of the spring D are free to swing toward or from the body, and each end is provided with a loop,

E, or some equivalent therefor, by which the straps may be connected to the respective ends

of the spring D.

The straps are substantially two, F and G, F being what I call the "upper strap," and G the "lower strap." These straps are made in a single piece, so as to in fact be but one strap, and are run through suitable hooks or loops, 60 H, and returned, as seen in Fig. 1. These hooks or loops H make the connection between the straps and the spring D. The straps, being run or doubled through the hooks or loops H, are permitted freedom of movement in ad- 65 justment or under the movements of the wearer. These straps F G are adapted to pass around the body, one above and the other below the hip, as seen in Fig. 3, and at the back the two straps are connected by a vertical 70 stay, I, which is stiffened with elastic metal or other elastic material, so that it may conform to the shape or movement of the body. The stay supports the two straps in their proper relative position to each other.

One end of the strap is provided with a suitable buckle or connection, J, by which the other end of the strap may be connected thereto. It having been passed around the body, as indicated in Fig. 3, the one strap above the 80 hip and the other below, and connected as I have described, the shape of the body prevents the straps from working up or down, and consequently retains the pad in its proper position, the tendency of the two straps being to 85 draw the pad in opposite directions, and there-

fore hold it in its proper position.

The flexible pad adapts itself to the shape of the body, and the straps play freely through their connection with the spring D.

The several springs yield to conform to the movements of the body. The result of all this is that the pad is exceedingly comfortable and easy for the wearer, and yet gives a firm support to the abdomen.
I claim—

1. In an abdominal supporter, the combination of the pad A, made from leather or other flexible material, combined with the horizontal elastic metal bar B, secured to the pad and 100 provided with vertical springs C, pivoted to its respective ends, the horizontal spring D, fixed to the bar B, and straps adjustably connected to the respective ends of said spring

4.

D and adapted to pass around the body, whereby the said pad is secured, substantially as described.

2. The combination of the perforated flexible pad A, the horizontal metal bar B, secured to the pad, vertical springs C at each end of the said bar B, the horizontal springs D, fixed to the said bar B, the straps F G, formed from

a single strap, adjustably connected to the respective ends of the said spring D, the said straps connected with a vertical stay, I, at the back, substantially as described.

BELA ST. JOHN.

Witnesses:

CHAS. L. MCNEIL, JOHN W. BROOKS.