To all whom it may concern:

Be it known that I, SAMUEL ARCHIBALD WALTON, a subject of the King of Great Britain and Ireland, and residing at 8 Sheriff road, West Hampstead, London, N.W. 6, England, have invented certain new and useful Improvements in Abdominal Supports for Medical and Surgical Use, of which the following is a specification.

My invention is embodied in the construction, arrangement and combination of parts hereinafter described and specifically indicated in the claims.

In the accompanying drawings Figure I shows the support in front elevation, the straps being shown spread out for convenience of illustration.

Fig. 2 is a plan view of the same.

Figs. 3 and 4 are respectively elevation and section of a part of the contact plate and steel outer strip to an enlarged scale.

A flexible contact plate a of the usual character, either of metal or other material, suitably shaped and covered, is employed, and I mount transversely on its outer side resilient means in the form of curved or wavy steel springs b, the projections on one side of which contact with the plate, and on the other side are adapted to contact with a steel outer front strip or plate c, which is preferably flexible, and covers the springs. To its ends brackets d are attached, which in turn receive the ends of an encircling body strip e, e'. The part e' of this is made wide to prevent it slipping down. An embracing tension member as above indicated is thus formed. The outward projections of the springs are arranged to slide on the outer strip or plate, and the inward projections of the springs are similarly arranged to slide on the contact plate. By simply tightening up the band or belt, the pressure on the plate is applied in the desired directions through the springs, and adjusted to any desired amount. Clips f may be used to keep the springs in position, and may be adjusted along the plate c. The support is conveniently fastened to the outer strip or plate by means of a clamping screw at g.

The head of this screw is disposed on the inside of the metal plate a, and its neck adjustable in a vertical slot h therein. By this means the plate spring b and the outer strip c can be raised or lowered to bring the pressure to bear at a higher or lower point on the plate a. To reinforce and strengthen the plate a at this point I attach preferably by rivets a smaller additional plate a' as shown by the broken lines, Fig. 3, and in section in Fig. 4 in full lines. The plate a is slotted to receive the neck of the clamping screw g, the plate a' being recessed to form a pocket for the head of the clamping screw. In some cases the neck of the screw g may be square, and the holes in the plate c and the center part of the springs b, b also square, so that the relative positions of the springs and plate a may be maintained, or as illustrated, some movement of pivoting at g may be permitted, the amount being limited by the pins i. I find this device gives a very well distributed support, and is very readily adjusted, so that great comfort is readily attained.

Instead of using one clamping screw, two may be used in the slot, and thus the pins i may be omitted.

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

1. The improved abdominal support comprising a broad plate for contact with the body of the wearer of the device, an elastic front plate secured to the front and middle portions of such contact plate, a back strip, and means adjusting the ends of the same with the contact plate, and curved plate springs secured to the front plate and their free outer ends projecting laterally and interposed between the contact plates and front plate, as described.

2. In an abdominal support of the type indicated, the combination of a body contact plate having a vertical slot, a front spring plate extending across the contact plate, a clamp screw securing such front plate to the contact plate, curved springs extending between the two plates, and clips adjustable connecting the springs and front plate for varying the pressure on the contact plate, substantially as shown and described.

In testimony whereof I have signed my name to this specification.

SAMUEL ARCHIBALD WALTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."

UNITED STATES PATENT OFFICE.

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ABDOMINAL SUPPORT FOR MEDICAL AND SURGICAL USE.


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