M. W. BURK.

ABDOMINAL SUPPORT.

APPLICATION FILED JAN. 13, 1916.

1,201,933. Patented Oct. 17, 1916.

Fig. 1.

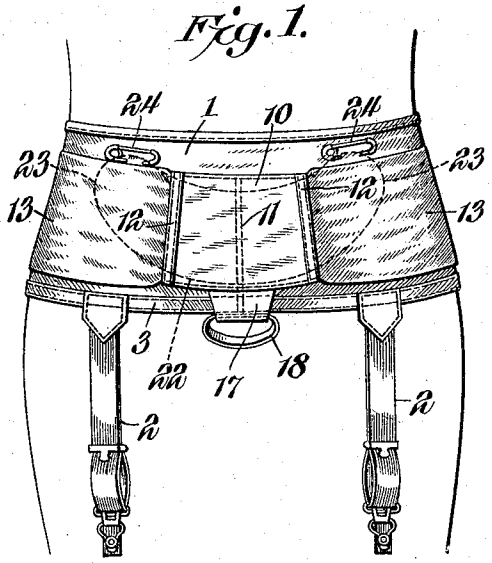


Fig. 2.

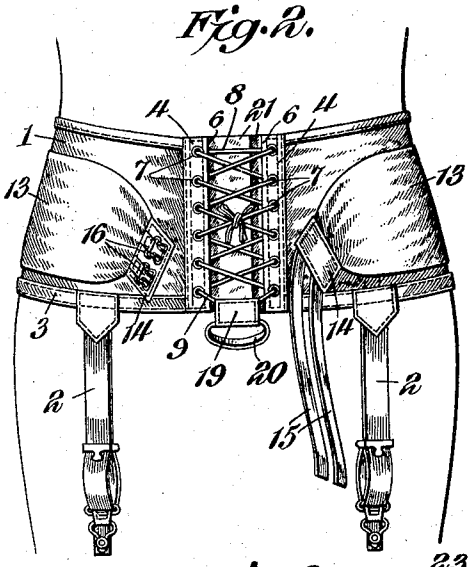


Fig. 3.

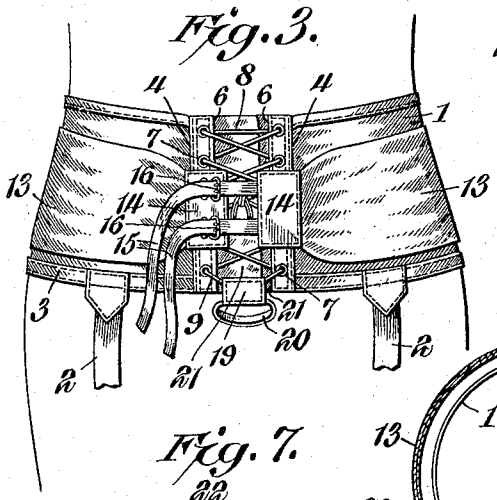


Fig. 6.

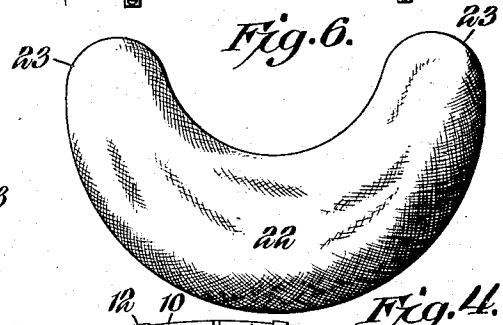


Fig. 4.

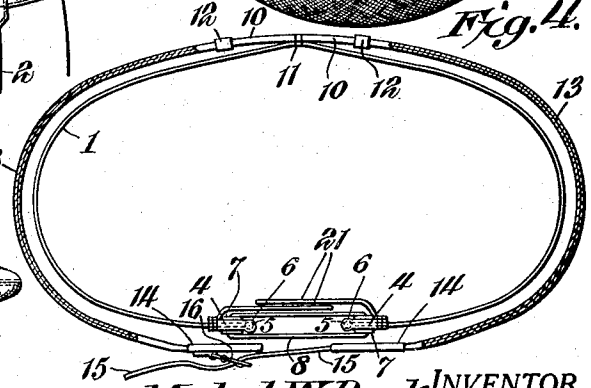


Fig. 7.

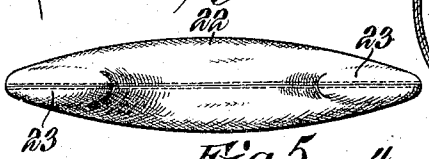
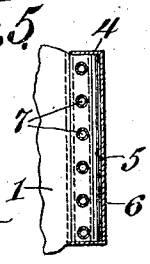


Fig. 5.



WITNESSES:

Jno. P. Kay.

Howard D. Orr.

Mabel W. Burk, INVENTOR,

BY E. G. Siggers.

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MABEL W. BURK, OF CHESTER, PENNSYLVANIA.

ABDOMINAL SUPPORT.

1,201,933. Specification of Letters Patent. Patented Oct. 17, 1916.

Application filed January 13, 1916. Serial No. 71,945.

To all whom it may concern:

Be it known that I, MABEL W. BURK, a citizen of the United States, residing at Chester, in the county of Delaware and State of Pennsylvania, have invented a new and useful Abdominal Support, of which the following is a specification.

This invention relates to abdominal supporters and surgical binders, and the object is to provide an improved supporter and binder of this class which is particularly efficacious for use upon post-operative patients for all organic abdominal disorders.

Another object is to provide a device which is adapted to be readily applied to the body of the patient in order to give proper compression to the walls of the abdomen, etc., and having additional supplemental means, carried thereby, to be strapped around the supporter and binder to render the same readily adjustable to increase or decrease the pressure upon the body of the wearer.

A further object is to provide means upon the supporter for the attachment of a plurality of garters for the stockings of the wearer, performing the double function of supporting the latter and acting to prevent the improved device from riding upwardly and away from the parts to be benefited, thus obviating the necessity of using a groin belt for this purpose.

The improved device is designed to be used in conjunction with a specially designed pad of relatively bulky formation adapted to be placed under the binder, next to the body of the wearer, in order to exert a greater pressure over the kidneys or other organs in cases where such treatment is found necessary.

A full and complete understanding of the invention may be obtained from a careful consideration of the following detailed description, taken in connection with the accompanying drawing, forming a part of this specification; it being understood that while the drawing shows a practical form of the invention, the latter is not confined to strict conformity therewith, but may be changed or modified, as long as such changes or modifications mark no material departure from the salient features of the invention, as specifically pointed out in the claims hereto appended.

In the drawing, in which like reference characters designate like parts in each of the several figures, Figure 1 is a front elevation of the binder and supporter in its applied position. Fig. 2 is a rear elevation of the same showing the outer or supplemental band unfastened to more fully disclose the means for tightening the inner or main binder or supporter. Fig. 3 is a similar view showing the supplemental band in its secured position. Fig. 4 is a plan view, partly broken away, and drawn to a slightly enlarged scale. Fig. 5 is a detail sectional view of one of the ends of the main binder or supporter. Fig. 6 is a side elevation of the pressure pad to be used in connection with the device, and Fig. 7 is a top plan view thereof.

The invention comprises in its construction a main band 1 of thin, porous material, knit in a manner to permit of considerable elasticity, so that the same may readily adapt itself to the contour of the body of the wearer, and of a width sufficient to approximately cover the abdominal regions. This band 1 is preferably formed of a single thickness of said material, and is adapted to fit around the body, just above the hips, and to have its free ends in close proximity to each other, at the center of the back, to allow for the adjustment of fastening means to be described. The band 1 is thus prevented from slipping downwardly over the hips, and in order to prevent any upward displacement of the device upon the body, garters 2, of ordinary construction, are utilized. Any desired number of such garters may be used, and they are adapted to be sewed or otherwise secured to a continuous band 3 formed of some stout inelastic cloth or other material and extending along the entire lower edge of the band 1 from end to end and suitably secured thereto as by stitching. The said garters may be secured to the band 3 at any desired location, so that when the garters are made fast to the stockings of the wearer, in the ordinary manner, any possibility of the upward displacement of the device is obviated.

A special feature of this invention is the provision of the inelastic band 3 entirely around the lower edge of the main band 1, as it not only serves as a binding for said band but avoids any stretching of the lower edge thereof, maintaining a tight grip on the body which could not be obtained were

the band 3 omitted, in addition to which the relative position of the garters is always the same. It is this part of the invention which enables me to dispense with the usual groin belt.

The ends of the band 1 are embraced by reinforcing strips 4 of stout, inelastic material, such as duck, drilling, etc., securely stitched to the band and having stiffening means 5, such as a strip of reed, whalebone or the like, of a length equal to the width of the band 1, interposed in the loop 6 formed by turning the strip 4 over the end of the band 1, the material forming the reinforcing strips 4 being suitably turned over at the top and bottom to prevent the endwise displacement of the stiffeners 5. Thus, the ends of the band are caused to maintain a taut, flat position against the back of the wearer.

A plurality of eyelets 7 are inserted in the strips 4, beyond the stiffeners 5, and are adapted to receive an ordinary lacing 8, for the purpose of exerting more or less pressure on the band 1 around the body. This lacing is preferably introduced into the eyelets in the usual manner of a corset lacing, so that the free ends of the said lacing are brought together at the middle of the strips 4, thus leaving a free loop 9 at the bottom of the band, for a purpose to be explained.

Intermediate the ends of the band 1, so as to lie directly over the central portion of the abdominal regions, there is secured a panel or web section 10 of some light-weight, inelastic material of a somewhat less width than the width of the band 1, and located approximately in a central position with respect to the top and bottom edges of the said band. This panel 10 is stitched along its vertical median line, as at 11, to the band 1, and thus comprises a right and left hand wing, free from the band and adapted to have secured thereto, as by stitching, reinforcing strips 12 and right and left hand extensions 13, formed of double thicknesses of material similar to that composing the main band 1.

The extensions 13 form an outer or supplemental band or binder, and they are adapted to be passed around the body, to the right and left, their free ends being reinforced by suitable pads or panels 14 of stout flexible material, and coming into close proximity to each other at the back of the wearer over the central portion of the lacing 8.

One of the panels 14 is provided with a pair of straps 15, and the other member 14 is provided on its outer face with a pair of buckles 16 adapted to receive the straps 15, in order to draw the outer supplemental band taut around the inner band 1 and maintain the same in such position.

The front panel 10 is provided at its lower edge with a relatively small tab 17 suitably secured to and depending from the lower edge thereof to form means for carrying a loop 18 of strong tape or the like, and for spacing the said loop away from the supporter. A similar tab 19 is made fast, as by stitching, to the loop 9 of the lacing, at the back of the supporter, and the said tab 19 has a corresponding loop 20 secured thereto.

The two loops 18 and 20 serve as means for supporting a sanitary pad or catamenial sack (not shown). In the event of the ordinary form of said pad being used, the same may be quickly and easily applied by folding the same in the customary manner, looping the folded cloth through the rear loop 20 and bringing the two ends forward and through the front loop 18 when, by the use of a single safety pin, the same may be fastened in proper position and, in the event of any adjustment being required, the same may be accomplished by the tightening or loosening of the portion 9 of the lacing at the back. Suitable flaps 21, stitched to the inner faces of the strips 4, extending from the top to the bottom of the band 1 and lying in overlapping relation to each other are adapted to prevent the lacing 8 from annoying the wearer by coming in contact with the skin.

For the treatment of certain disorders, or for the purpose of applying an extra amount of pressure to a particular part of the body, as, for instance, to the kidneys or the pit of the stomach, a pad 22 is adapted to be used in conjunction with the improved supporter and binder. This pad is made preferably in the form of a crescent, and consists of a base member, cut in the above mentioned shape and having suitable padding material arranged on each side thereof, and a covering of material similar to the band 1 and members 13 sewed tightly around the whole.

The pad 22 is adapted to be placed beneath the band 1 next to the body, and secured in place by fastening the same to the band with safety pins 24, directly over the part to be subjected to such treatment and, in the event of it being desired to utilize the same as a kidney pad, in the treatment of displaced or movable kidneys as shown in dotted lines in Fig. 1, it will be seen that the pad lies across the abdomen with the curved extended ends 23 opposite the regions overlying the kidneys, so as to hold the kidneys up into their proper positions.

It will be observed that the width of the pad is no greater than the width of the supplemental band, whereby the latter when drawn tight serves to keep the pad in place. The fasteners 24 are attached to the main band outside the limits of the supplemental band.

From the foregoing it will be seen that a

supporter and binder is provided which is of maximum strength, and much lighter in weight than similar devices, composed of rubber, etc. and that being formed of porous material, is always ventilated and may be readily washed and kept in a sanitary condition, and that the same is capable of being readily applied or removed from the body of the wearer.

What I claim is:—

1. A surgical binder comprising a main band formed of elastic textile material, means for connecting the ends of said band, a supplemental band narrower than the main band and fastened at an intermediate point to the front of the main band, means connecting the ends of the supplemental band, a continuous narrow band secured along the entire lower edge of the main band and constituting a facing therefor and made of inelastic material so as to firmly grip the body from end to end of the main band, and garters secured to said narrow band at spaced points and depending from the same, whereby a groin belt is dispensed with and the binder is maintained in place.

2. The combination with a surgical binder comprising a main band formed of flexible material, means for connecting the ends of said band, a supplemental band fastened at an intermediate point to the main band, means for connecting the ends of the supplemental band, of a crescent-shaped pad placed between the main band and the body of the wearer and of a length to extend across the abdomen and of a width less than the main band and no greater than the supplemental band, and fastening means for connecting the curved ends of the pad to the main band outside the supplemental band.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MABEL W. BURK.

Witnesses:
KATHARINE M. WORRILOW,
WILLIAM P. LEAR.

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