R. H. & M. L. KEAGY.
COMBINED ABDOMINAL SUPPORTER AND CATAMENIAL SACK.
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976,883. Patented Nov. 29, 1910.

2 SHEETS-SHEET 3.
To all whom it may concern:

Be it known that we, RUDOLPH H. KEAGY and MARTIN L. KEAGY, both citizens of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Combined Abdominal Supporter and Catamenial Sack, of which the following is a specification.

Our invention relates to improvements in combined abdominal supporters and catamenial sacks and has particular reference to a form of such devices in which the supporter and sack cooperate in producing a comfortable and satisfactory article, the sack being detachable and being in the form of a receptacle rather than an absorbent pad.

It will be understood that it is usually desirable to use an abdominal supporter in conjunction with a catamenial sack but that it may sometimes be desirable to wear the one or the other device separately.

The objects of the present invention are to generally improve articles of the character mentioned, to provide a simple, convenient, comfortable, sanitary and effective device, to successfully combine an abdominal supporter with a catamenial sack while making provision for their ready disassociation when desired, and to so construct the catamenial sack that accidental spilling or leaking of its contents will be prevented. These objects, together with other objects readily apparent to those skilled in the art, we attain by the construction illustrated in the accompanying drawings, although our invention may be embodied in a variety of other forms of construction that form illustrated being chosen by way of example.

In the drawings Figure 1 is a perspective view of a combined abdominal supporter and catamenial sack embodying our invention. Fig. 2 is a fragmentary vertical section through the catamenial sack on a median ventro-dorsal plane. Fig. 3 is a top view of the sack. Fig. 4 is a section on the line 4–4 of Fig. 3. Fig. 5 is a sectional view of the draining valve in opened position. Fig. 6 is a vertical sectional view of a modified form of sack on a median ventro-dorsal plane. Fig. 7 is a top view of that form of sack shown in Fig. 6. Fig. 8 is a vertical sectional view of a second modification of the sack on a median ventro-dorsal plane. Fig. 9 is a top view of that form of sack shown in Fig. 8.

Throughout the several views similar reference numerals indicate similar parts.

The abdominal supporter, which also constitutes the supporting means for the catamenial sack, as will hereinafter appear, is provided with the abdominal apron 1, composed preferably of light but strong fabric and being adapted to cover and support the lower ventral portion of the body. The apron 1 is provided with the integral upper lateral extensions 2, the lower lateral extensions 3, and the sack attaching flap 4. To the extensions 2 is connected the waistband 5 in any suitable adjustable manner, as by buckles 6. The super-sacral band 7 and the sub-sacral band 8 are both attached by similar adjustable means, as the buckles 9 and 10, to the extensions 3. The band 7 is adapted to extend around the body and across the back in the super-sacral region, while the band 8 is adapted to extend similarly across the back in the sub-sacral region.

For the purpose of connecting the various bands and keeping the same in proper relative position, the dorsal connecting strap 11 and the dorso-lateral straps 12 are provided. These straps are connected at their upper ends to the waistband 5, intermediate their ends to the super-sacral band 7, and by means of the loops 13, buckles 14 and eyes 15 are adjustably connected to the sub-sacral band 8 in the well known manner illustrated in the drawings.

Attached to the apron 1, and running from the lower lateral extension on one side to the corresponding extension on the other, is a supporting band, preferably of elastic material such as rubber fabric, illustrated in the drawings in dotted lines at 16. This band extends across the apron in such position as to complete the band 7 across the abdomen, said bands 7 and 16 lying in the same inclined plane, as shown in Fig. 1. In addition to the supporting band just described two auxiliary supporting bands, 17 and 18, cross each other near the center of the apron 1, each extending from the upper lateral extension on one side, downwardly and diagonally across the apron to a point at the edge of said apron intermediate the lower lateral extension and the sack attaching flap on the other side. These bands 16, 17 and 18 not only strengthen the apron 1 and distribute the weight supported to the appropriate body encircling bands, but mate.
ially aid in maintaining said apron in shape to properly support the abdomen.

The catamenial sack is formed of a single piece of rubber. The suspending band 19 is provided at its front and rear ends with parts of snap fasteners, 20 and 21 respectively, of well known form and adapted to co-act with corresponding fastener parts on the flap 4 and on the band 8 where the connecting strap 11 is attached. By reason of this method of connection the sack portion of the device may be readily and quickly disconnected from the supporter when desired. In cross section the suspending band is of the form illustrated in Fig. 4, the beads or rollant 22 or the tongues being of such oval or rounding form as to prevent undue chafing of the skin coming in contact with said edges.

For the purpose of providing ventilation and thus adding to the comfort of the wearer the band 19 is provided with numerous air openings, 23, adapted to permit the free access of air to the skin beneath said band. At a point intermediate the ends of the band 19 the valve opening 24 is provided. Around the edge of this opening a roll of rubber, 25, formed integrally with the band 19, not only assists in maintaining the appropriate shape of the opening 24 but also serves to more closely fit the form of the wearer and prevent accidental spilling or leaking of the contents of the sack. It should be noted, however, at this point, that the said roll 25 may be formed of solid rubber or may be provided internally with an air chamber or a sponge rubber core to increase its pliability. If desired, also, a form wire 26 may be located in said roll for the purpose of maintaining the opening 24 in proper shape. Located immediately below said opening, and on the under side of the band 19 is the receiving cup 27, the walls of which are formed of rubber integral with the band 19. Below said cup is the retaining receptacle 28, the rubber walls of which are also formed integrally with the band 19 and cup 27. From the cup 27 the connecting opening 29 leads into the receptacle 28.

In the preferable form of construction, illustrated in Figs. 1, 2 and 3, the receptacle is of spheroidal form, the shortest axis being transversely disposed so as to impede the movements of the wearer in the least possible degree. At the lower side of the receptacle 28 the outlet valve 30 is provided. This valve may be of any simple construction, such as that illustrated in the drawings, and adapted to be closed to retain the contents of the receptacle, or to be opened to discharge the same. Across the connecting opening 29 a screen, 31, is arranged. This screen may be formed of wire gauze and serves two purposes. It maintains the shape of the opening, preventing it from closing, and also retains any clots in the upper or cup portion of the device. Above the valve 30 a second screen, 32, is provided. Both the screen 31 and the screen 32 have frame portions 33 which are adapted to be removably seated in annular grooves in the rubber walls, as illustrated in Fig. 2. Extending from the center of the screen 31 to the edge of the screen 32 is a sponge holder 34 in which a sponge 35 may be arranged to absorb a portion of the contents of the receptacle. It should be noted, however, that the device illustrated in Figs. 1 and 2 may be used without the screens 31 and 32 and without the sponge holder if desired, an ordinary sponge being arranged in the receptacle 28 or omitted entirely, as desired.

Formed integrally with the receptacle and cup portions is the back-draining receptacle 36, located below the rear portion of the cup 27 and to the rear of the receptacle 28. The interior of the receptacle 28 communicates with the back-draining receptacle through the opening 37. The purpose of the back-draining receptacle 36 is to permit the wearer to assume a recumbent position without danger of spilling the contents of the receptacle 28. When such position is assumed said contents will temporarily drain through the opening 37 into the receptacle 36.

In the modifications illustrated in Figs. 6 and 7 the screens 31 and 32 are not employed, nor is the sponge holder used. The receptacle 35 in this form of device is not of spheroidal form but said receptacle and the back-draining receptacle are united in one container or lower cup, 39, provided with the outlet valve 30 as in the preferred form of device. In the modification illustrated in Figs. 8 and 9 the screens and sponge holder are also not used, but the lower wall of the receiving cup is slightly raised midway between the front and rear thereof, producing two concave upper surfaces, each provided with an opening, as 29 and 40. In this form the retaining receptacle is of a form intermediate that illustrated in Fig. 2 and that illustrated in Fig. 6, as will be seen from an inspection of the drawings.

It should be noted that portions of the bands 5, 7 and 8, or the entire bands may be constructed of elastic material to increase the comfort of the wearer and permit greater freedom of movement. Likewise the straps 11 and 12 may be made in whole or in part of elastic material, as desired. The sack portion being made of rubber will also have considerable elasticity, with the exception of those portions of the band 19 at the ends, where the friction cloth, shown in dotted lines at 41, to give firmer attachment of the snap fasteners, prevents any considerable stretching. It will be readily understood, however, that the entire device is well adapted to perform the service intended in an
efficient and successful manner, the detailed description of its use and operation being readily apparent to those skilled in the art and therefore not set forth at length in this specification.

We claim:

1. A combined abdominal supporter and catamenial sack, comprising an abdominal apron adapted to cover and support the lower ventral portion of the body and having integral upper and lower lateral extensions and a sack attaching flap; a waistband adjustably attached to said upper lateral extensions; a super-sacral band and a sub-sacral band adjustably attached to said lower lateral extensions; a dorsal connecting strap and two dorso-lateral connecting straps attached at their upper ends to said waistband, intermediate their ends to said super-sacral band and at their lower ends adjustably attached to said sub-sacral band; a supporting band attached to said apron and running from one lower lateral extension to the other, said supporting band lying in the same inclined plane as the super-sacral band; auxiliary supporting bands attached to said apron and crossing each other near the center thereof, each extending from the upper lateral extension on one side to a point at the edge of said apron intermediate the lower lateral extension and the sack attaching flap on the other side; and a catamenial sack composed of a single piece of rubber detachably connected to said sack attaching flap and said sub-sacral band.

2. A combined abdominal supporter and catamenial sack, comprising an abdominal apron adapted to cover and support the lower ventral portion of the body; bands attached to said apron and adapted to attach said apron to a body and to support the abdomen; a rubber suspending band provided with a plurality of air openings and adapted to be detachably connected to said apron and one of said bands, said suspending band also provided with a vulvar opening intermediate its ends; an integral roll located around the edge of said vulvar opening; an integral receiving cup located below said opening and on the under side of said suspending band; an integral receptacle located below said receiving cup, the wall of said cup having an opening leading into said receptacle; an integral back-draining receptacle located below the rear portion of said receiving cup and to the rear of said receptacle, the interior of said receptacle communicating with said back-draining receptacle; a screen arranged across the opening from said cup to said receptacle; an outlet valve at the bottom of said receptacle; a screen arranged above said valve; and a sponge holder and sponge therein held located intermediate said screens in said retaining receptacle.

In testimony that we claim the above, we have hereunto subscribed our names in the presence of two witnesses.

RUDOLPH H. KEAGY.

Witnesses:

WILLIAM H. MILLER,
F. W. BOND.