July 19, 1949. J. H. KENT 2,476,375

URINARY APPARATUS

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FIG. 1.

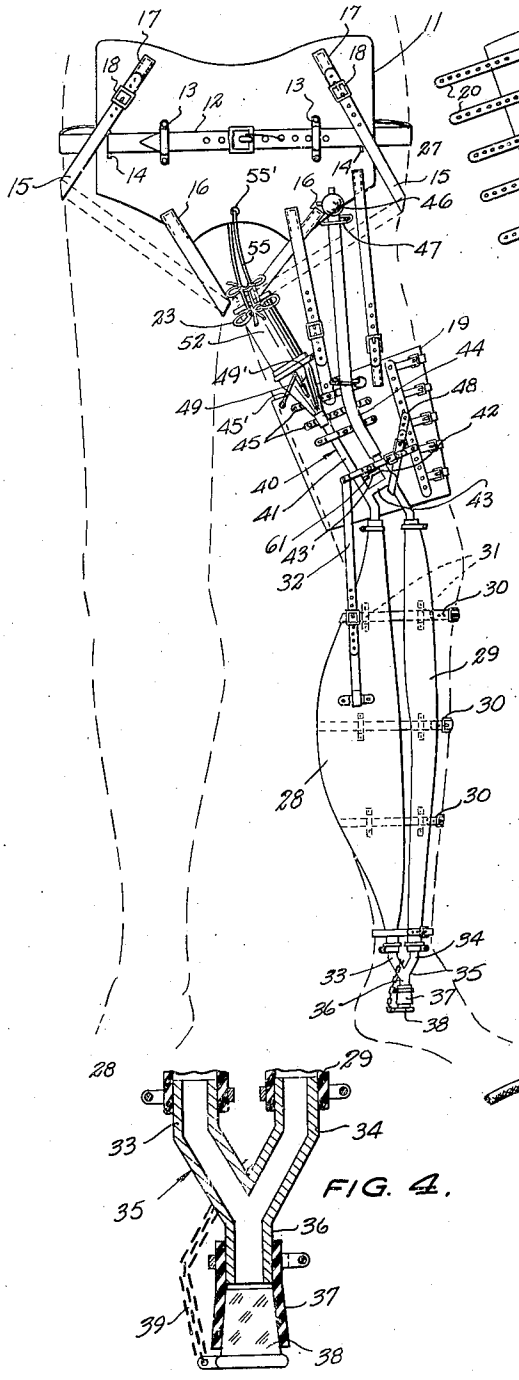
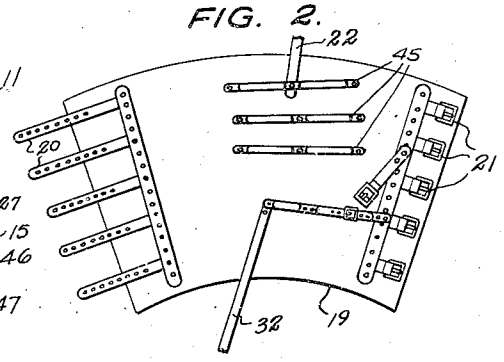


FIG. 2.



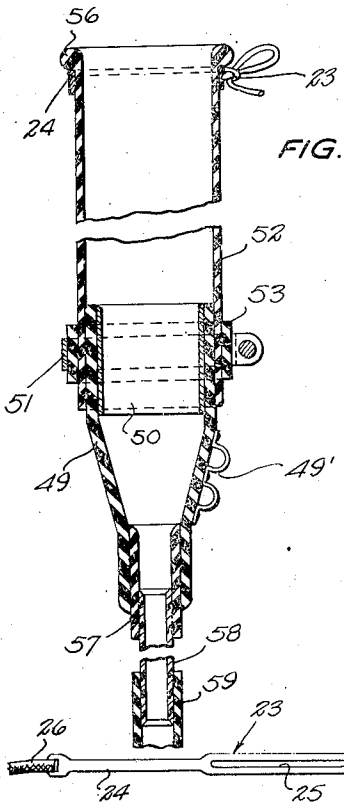


FIG. 3.

FIG. 4.

FIG. 5.



FIG. 6.

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URINARY APPARATUS

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3 Claims. (Cl. 128—295)

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This invention relates to surgical appliances, and more particularly to a urinary apparatus for use by invalids or incapacitated persons suffering from ailments causing incontinence of urine.

A main object of the invention is to provide a novel and improved urine drainage apparatus which is simple in structure, comfortable to wear and which occupies a minimum amount of space, whereby it may be worn beneath normal clothing.

A further object of the invention is to provide an improved urinary apparatus for use by persons incapacitated by disease or other causes from exercising normal control over the emission of urine, said apparatus being light in weight, being wearable without interfering with normal body movements of the person using same, and being easy to empty whenever required.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is an elevational view illustrating a urinary apparatus according to the present invention secured to the body of a person in working position.

Figure 2 is an elevational view of a thigh band employed in the apparatus of Figure 1, shown in unwrapped position.

Figure 3 is an enlarged cross-sectional detail view taken through the penis-receiving sheath employed in the apparatus of Figure 1.

Figure 4 is an enlarged cross-sectional detail view of the lower branch conduit member employed in the apparatus of Figure 1.

Figure 5 is an enlarged elevational detail view of an elastic band for securing the penis-receiving sheath employed in the apparatus of Figure 1.

Figure 6 is an enlarged fragmentary perspective view of a rubber cap member which may be employed for closing off the ends of the branch conduits when the conduits are detached from the apparatus.

Referring to the drawings, 11 designates a hip pad of leather or other suitable flexible material which is secured to the body of the wearer by a flexible belt 12 passing through loops 13, 13 secured to the pad 11 and slots 14, 14 formed in the pad adjacent its side margins. Designated at 15, 15 are thigh straps secured to the pad 11 at its lower intermediate portions, as at 16, 16 and at its upper side portions, as at 17, 17 and passing rearwardly around the wearer's thighs. The straps 15, 15 are provided with adjusting buckles 18, 18 for tightening the straps to obtain

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comfortable securement of pad 11 to the wearer's body.

Designated at 19 is a thigh band of leather or the like, having a plurality of straps 20 secured to one side portion thereof and having the same number of buckles 21 secured to the other side portion thereof, the band 19 being downwardly tapered so that when the band is secured to the wearer's thigh by means of straps 20 and buckles 21 the band will conform to the shape of the thigh. Band 19 is connected to one side of hip pad 11 by adjustable straps 22.

Designated at 28 is a first elastic elongated rubber container of relatively large size and designated at 29 is a second elongated elastic rubber container of smaller capacity. Containers 28 and 29 are secured to the wearer's calf by means of a plurality of straps 30 encircling said containers and the calf and passing through loops 31 secured to the containers. Container 28 is connected to thigh band 19 by an adjustable strap 32. Connected to the lower ends of said containers are the respective upper branches 33 and 34 of an acid resistant metal or plastic Y-fitting 35. Secured to the lower branch 36 of said fitting is a rubber sleeve 37 in which a plug 38 normally is received to close off the bottom branch of the fitting 35. Plug 38 is connected to the fitting by a chain 39 to prevent accidental loss of said plug.

Designated at 40 is an H-fitting of acid-resistant metal or plastic having parallel conduit portions 41 and 42 connected by a transverse conduit portion 43 and by a re-inforcing bar 43'. The lower end of conduit portion 42 is connected to the top end of container 29. Connected to the upper end of conduit portion 42 is an upwardly extending hard rubber tube 44 which may be secured to band 19 by a safety pin or by pieces of string or tape secured to loops formed in a plurality of straps 45 fastened to said band. Tube 44 carries at its top end a bulb 46 which is vented to atmosphere. The upper portion of tube 44 may be secured to the wearer's clothing by means of safety pins 47 encircling said tube, the tube being restrained against downward movement by the enlarged bulb portion 46.

An adjustable strap 48 connects the lower portion of conduit 42 to band 19. The upper portions of fitting 40 are secured to band 19 by a strap member 61.

The lower end of conduit portion 41 is connected to the top end of container 28. The upper end of said conduit portion is connected to the lower end of a funnel-like rubber member 49, said member 49 and the adjacent portion of con-

duit 41 being retained on band 19 by pieces of string or tape binding same to suitable loops provided therefor in the straps 45, and by adjustable strings or tape members 45' connecting band 19 to loops 49' provided on member 49.

The H-fitting 40 is preferably 6 inches in length from end-to-end. The top ends of the fitting 40 are preferably 3 inches from the transverse conduit portion 43, the lower arms of the fitting being likewise angles as shown in Figure 1, parallel to the calf of the leg, preferably at a 30° angle of deviation. The diameter of the conduit portions of the fitting is preferably ⅝ inch, the two top conduit terminals being tapered to ¾ inch.

Inserted in the top portion of funnel member 49 is a rigid sleeve 50. Secured outwardly on said top portion by a clamping band 51 is the lower end portion of a thin elastic rubber sleeve 52, a rubber padding ring 53 being interposed between clamping band 51 and the lower portion of sleeve member 52. The sleeve 52 is adapted to receive the wearer's penis in close-fitting relation therewith and to be fastened thereto at its top portion by slotted band 23.

Band 23 comprises an elongated rubber body 24, longitudinally slotted at 25 and having secured to its ends respective cloth tapes 26 and 27. In securing the band 23 to the sleeve 52, said band is fastened around the sleeve below a top bead 56 on said sleeve, with the unslotted portion of body 24 passing through the slot 25 and the tapes 26 and 27 then tied together to form loops. The loops are secured to the hip pad 11 by a string 55 looped through an opening 55' formed in the lower marginal portion of said hip pad.

Where additional length of conduit 41 is required, an extension may be connected to the lower end of funnel member 49, comprising a rigid throat member 57 secured in said lower end and provided with an extension tube 58. Three standard sizes of extensions are provided for this purpose. Tube 58 has secured thereto at its lower end a rubber sleeve 59 into which the top end of conduit 41 may be fitted and frictionally or otherwise secured.

When the conduit fittings 35 and 40 are detached from the other portions of the apparatus, they may be capped at their open end, as required, by the use of rubber cup members such as shown at 60 in Figure 6.

When the wearer retires for the night, funnel member 49 is disconnected from the upper end of conduit 41 and a suitable rubber conduit is connected to said funnel member, the conduit leading to a suitable container placed on the floor near the bed. Under these conditions the rubber funnel member remains secured to thigh pad 19. A suitable tapered plug may be employed to close off the end of the funnel member while making the above and other changes.

The preferred diameter of all nipples employed is ⅝ inch, the ends thereof being tapered to ¾ inch for making the required connections to the various conduit sections engaged thereon.

While a specific embodiment of a urinary apparatus has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A urinary apparatus comprising a hip pad, a thigh band, means yieldably connecting said thigh band to said hip pad, an elastic elongated container, means connecting said container to said thigh band, conduit means connected to the upper portion of said container, a thin highly elastic sheath member connected to said conduit means, said sheath member having a top bead, and means engaging beneath said bead for connecting the upper rim portion of said sheath member to said hip pad.

2. A urinary apparatus comprising a hip pad, a thigh band, means resiliently connecting said thigh band to said hip pad, a first elastic elongated container, a second elastic elongated container, common calf-engaging strap means secured to said containers, conduit means connecting the bottom ends of said containers, a vent tube connected to the top end of said second container, a thin elastic sheath member, conduit means connecting the lower end of said sheath member to the top end of said first container, means securing said latter conduit means and said vent tube to said thigh band, a tube element connecting said latter conduit means to said vent tube, and means for securing the upper rim portion of said elastic sheath member to said hip pad.

3. A urinary apparatus comprising a hip pad, a thigh band, means resiliently connecting said thigh band to said hip pad, a first relatively large elastic elongated container, a second smaller elastic elongated container, common calf-encircling strap means secured to said containers, a Y-fitting connecting the bottom ends of said containers, the depending branch of said Y-fitting being provided with a removable plug, an H-fitting having its parallel branches connected respectively to the top ends of said containers, a vent tube connected to the top end of one of said parallel branches, a thin elastic sheath member, conduit means connecting the lower end of said sheath member to the top end of the other of said parallel branches, means securing said H-fitting to said thigh band, and means for securing the upper rim portion of said elastic sheath member to said hip pad.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
904,942	D'Incognito	Nov. 24, 1908
2,133,130	Buchstein	Oct. 11, 1938