Oct. 1, 1957 S. G. ALLAN 2,807,805

PADDED UNDERSHORT

Filed July 11, 1955

Fig. 1.

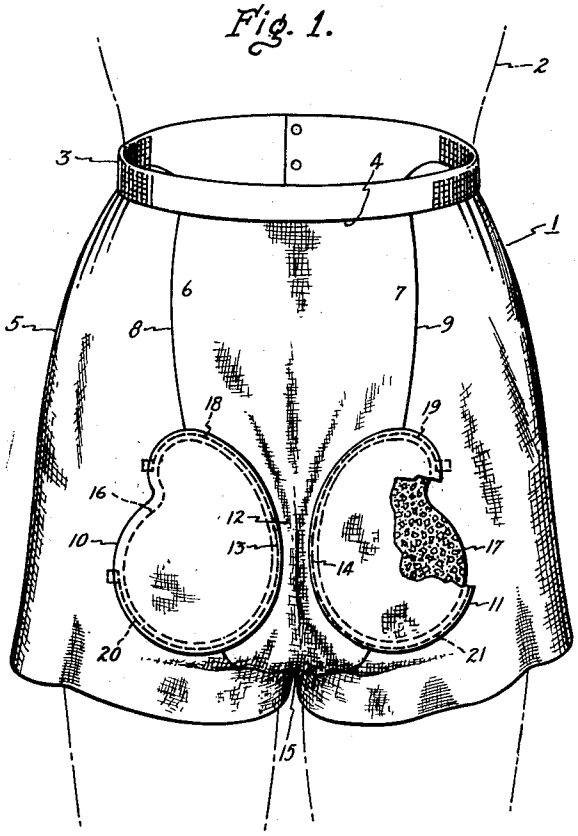


Fig. 2.

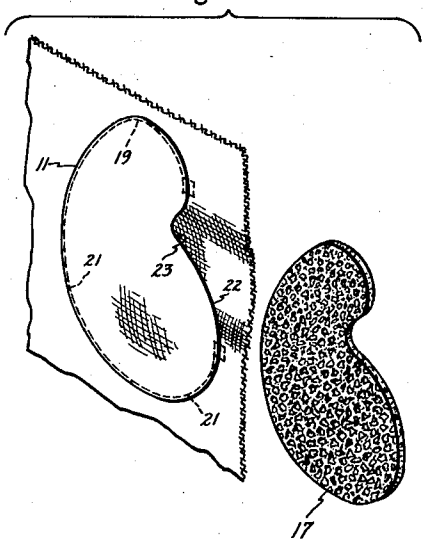
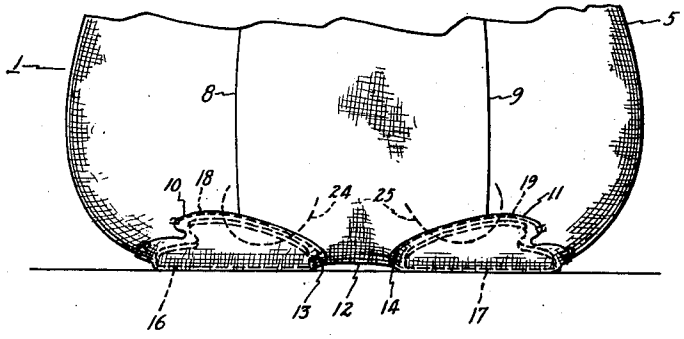


Fig. 3.



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1 Claim. (Cl. 2—224)

This invention relates to undergarments and particularly to a padded undershort.

An object of this invention is to provide an undershort padded in a manner to provide cushions for the ischium bones upon sitting and upon standing and walking to avoid visible projections or protuberances, to avoid substantially all discomfortable engagement of the pads with the body and to avoid any displacement of the pads from the desired positions thereof.

Various suggestions have heretofore been advanced relating to the wearing of pads in a manner intended to dispose the pads under the ischium bones of the wearer upon sitting. The problem of retaining such pads on the body has had various solutions. According to one previous suggestion, the pads are attached or formed as a part of an elastic body garment uncomfortably tightly disposed about the hips, holding the pads tightly against the buttocks. This suggested arrangement permits no passage of air under the pads, but maintains the pads uncomfortably tightly against the skin both while standing and sitting. Other suggestions have included the loose hanging of pads from a belt by means of a strap, but the additional equipment involved in wearing such assemblies is unsightly, costly and uncomfortable, and the pads become displaced so as not to become disposed under the ischium bones upon sitting and so as to overlap or to work around to the sides of the hips upon walking or standing.

The above mentioned disadvantages of prior arrangements, among others, are overcome in accord with this invention, which provides a light weight, loose fitting garment comprising readily removable pads, wherein the pads assume automatically the correct position for protecting the ischium bones upon sitting, assume a comfortable position upon standing, and remain substantially invisible at all times.

It is accordingly an object of this invention to provide a loose-fitting support for ischium bone cushioning pads which will be comfortable to the wearer and which will support the pads in desired positions regardless of the posture of the wearer.

It is a further object of the invention to provide a combination support for ischium pads and undergarment.

The novel features which are believed to be characteristic of this invention are set forth with particularity in the appended claim. The invention itself, however, both as to its organization and method of operation, together with further objects and advantages thereof, may best be understood by reference to the following description taken in connection with the accompanying drawing, in which:

Fig. 1 is an elevational view of an ischium pad supporting structure, partially cut away to disclose the position of the padding material;

Fig. 2 is an enlarged exploded detail view of a portion of the ischium pad support structure showing the padding material removed from a pocket for the pad; and

Fig. 3 is an elevational view similar to Fig. 1 but showing the structure as it appears on a wearer in seated posture.

The ischium pad support structure 1 is shown in Fig. 1 as it appears on a standing wearer 2. The structure comprises a hip-encircling belt 3 permanently attached along the upper edge 4 of a hip-encircling, loose-fitting tube 5. The tube comprises essentially a flexible, non-extensible or non-yielding permanent attachment portion 6 and 7 for each pad depending from the belt such as is provided by the portions of the tube 5 extending along seams 8 and 9, together with a hip-encircling, flexible, non-extensible band extending outwardly from the pockets 10 and 11 and forwardly around the hips and across the front of the body of the wearer, the complete band further comprising a non-extensible medial fabric portion 12 interconnecting between the inwardly disposed edges defined by stitches 13 and 14 of the pockets, and a crotch portion 15 which joins the portion 12 through the crotch of the wearer with the portions of the tube 5 disposed at the front of the wearer. These essential tube elements, together with the belt 3, may be assembled into a garment of the type commonly referred to as "shorts," and specifically an undergarment or undershorts as is shown in the specific embodiment of the invention illustrated in the drawings.

In the illustrated preferred embodiment of the invention kidney-shaped pads 16 and 17, which may be of sponge rubber or of other suitably soft cushioning materials, preferably non-absorbent and resilient, of between about one-quarter of an inch and one-half of an inch in thickness, are affixed in predetermined positions to the tube fabric by enclosure within pockets 10 and 11, the pockets being permanently attached on opposite sides of the center rear of the tube by means of stitches 13 and 14 which define the inner edges of the pockets, by stitches 18 and 19 which define the upper and part of the outer edges of the pockets and by stitches 20 and 21 which define the lower and part of the outer edges of the pockets. The pads 16 and 17 are shaped and proportioned substantially to conform to and fill the space within the stitched edges of the pockets. The intermediate portion of the outer edge of each pocket will be seen to be unstitched, thereby to provide an opening through which the pad may be inserted and removed. The openings are substantially smaller than the pads and the pads are therefore retained within the pockets unless and until manually intentionally folded and pulled through the openings.

As seen in Fig. 1, when the wearer is standing, the pads hang freely from the belt 3 in a position in which the inner edges of the pads, as defined by stitches 13 and 14, do not overlap or touch but approach each other within somewhat less than an inch. Any overlap would provide an unsightly bulge and, causing the pads to twist away from the body, would result in discomfort or annoyance to the wearer. According to my invention, no overlap occurs.

Details of the pad and pocket are seen in Fig. 2, wherein pad 17 is shown as being of sponge or foam rubber and removed from the pocket 11. The pocket is formed by the stitches 14, 19, 21, which join pocket member 22, of flexible fabric such as cotton broadcloth, to the seat portion of the tubular body member 5, which may be of the same or a similar fabric. Opening 23 is provided along the outer edge for insertion of pad 17 as previously described.

The relation of the elements of the structure in accord with my invention upon sitting is shown in Fig. 3, wherein the medial portion 12 of the seat portion of the cloth fabric tube 5 between the pads 16 and 17 is stretched taut or nearly taut by the spreading at the hips of the wearer. The inner edges 13 and 14 of the pads, accordingly, are

spaced in this posture by a distance of between substantially 2 inches and 3 inches. It has been found that the tautness of portion **12** is greater for larger persons, with ischium bones more widely spaced, than for smaller persons. According to this invention, the tube **5** is of non-yielding or non-stretchable fabric, such as cotton broadcloth, and surrounds the hips with a sufficiently loose fit for comfort, and to the tube so proportioned, regardless of the size of the wearer, the pads are attached with not more than between 2¾ and 3 inches of the tube fabric between the inner edges **13** and **14**. These proportions insure that the pads, upon sitting, will be disposed under the ischium bones **24** and **25** of the wearer, whereas, upon standing, the pads will move toward each other but will not meet or overlap to form an uncomfortable and unsightly bulge.

Each pad is conveniently between 4 and 7 inches in overall height and approximately 3 to 4 inches in maximum width. The kidney shape of the pads, shown in the drawing, the concave edge being disposed outwardly, provides comfort with minimum overall size, avoids corners or edges which would be uncomfortable, and assists in minimizing any tendency toward displacement or "riding up" of the pads during walking, for example.

Since the pads as attached to the loose hip-encircling tube **5** tend to hang together when the wearer is standing, and tend to separate upon sitting into proper position to become disposed under the respective ischium bones with intervening unpadded space between the inner edges of the pads, maximum ventilation is permitted, together with minimum pad width. The folding of portion **12** between the inner edges of the pads which occurs upon standing avoids both bulging at the center of the seat area of the garment and the outward projection of the outer edges of the pads which would result in unsightly bulges at the sides of the hips, while the limitation of outward movement of the pads upon sitting insures that the inner edges **13** and **14** will fall between the ischium bones. It will be understood that the limitation on maximum separation of the inner edges is afforded by portion **12** of flexible, non-stretchable fabric.

It will thus be seen that the arrangement shown in the drawing comprises pads filling or substantially filling pockets spaced on opposite sides of the center of the seat area of the tube. The distance between the ischium bones of a person being approximately three inches, the portion **12** of the seat area extending between the inner edges of the pockets is proportioned to limit the separation of the inner edges to between 2½ and 3 inches, or less than the distance between the ischium bones of the wearer. If the width of portion **12** between the inner edges of the pockets is less than approximately one-half of the distance between the ischium bones, however, there is a substantially increased tendency toward overlapping or edge contact and buckling between the two pads, and, furthermore, if the pads are connected by a portion **12** of less than 1½ inch width, the pads must be so wide in order to have outer edges outside the ischium bones upon sitting that the pads will protrude, upon standing, beyond the ordinary hip line of the wearer, causing unsightly bulges at the sides of the seat of the wearer's outer garments. Accordingly, with the proportions herein specified, the pads cannot, upon sitting, have inner edges separated by so great a distance that the inner edges do not lie between the ischium bones,

while the separation of the inner edges upon sitting by a distance of greater than 2 inches permits the width of each pad between its inner and outer edge to be much less than would be required in other arrangements. Then upon standing, as the hips narrow, the pads move toward each other and the outer edges do not project outwardly at the sides of the seat beyond the normal edges of the seat area of the wearer's garments, or, in other words, beyond the side hip lines as viewed from a point behind the wearer.

It will be understood that the upper edge of each pad should be below the belt, preferably 7 or 8 inches below the belt, but above the ischium bone in sitting posture, that is, between the belt and the ischium bone, while the lower edge should be below the ischium bone, that is, between the ischium bone and the back of the knee, in sitting posture. The pad may thus be between about 4 and about 7 inches long for satisfactory comfort, although longer or shorter pads may be provided if desired.

While only certain preferred embodiments of this invention have been shown and described by way of illustration, many modifications will occur to those skilled in the art and it is, therefore, desired that it be understood that it is intended in the appended claim to cover all such modifications as fall within the true spirit and scope of this invention.

What is claimed as new and what it is desired to secure by Letters Patent of the United States is:

Padded shorts comprising a waist-encircling belt, a hip-encircling tube of non-yielding flexible cloth including a seat area, said tube being attached to and depending from said belt and adapted and arranged to fit loosely about the hips of the wearer while in standing posture and to become substantially taut at said seat area across the buttocks when the wearer assumes a sitting posture, a pair of kidney-shaped pockets stitched to said tube at said seat area on respective opposite sides of the center rear thereof, each said pocket having a top edge, a lower edge and an inner edge closed by said stitching and having an outer edge partially closed by said stitching, said outer edges having openings into said pockets, a respective kidney-shaped pad in and substantially filling each said pocket between said edges thereof, said pads and pockets having their concave edges outwardly disposed and said pads being of sufficient size to pad the respective ischium bones of the wearer upon sitting, the upper edge of each pocket being spaced below said belt and each pocket extending downwardly substantially spanning said seat area from top to bottom thereof, each said pocket outer edge being disposed adjacent to and inwardly of a respective side of said tube, the inner edges of said pockets being disposed on respective opposite sides of said center spaced from each other upon assumption of said sitting posture when said tube fabric is taut across said seat area by a distance at least substantially as great as one-half of the width dimension of one of said pockets, whereby the inner edges of said pads separate upon sitting sufficiently to maintain at least slight separation therebetween upon subsequent assumption of standing posture by the wearer.

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