Oct. 14, 1952 S. N. FRIEDLAND ET AL 2,613,360

ATHLETIC GARMENT OR THE LIKE

Filed Aug. 13, 1951

Fig. 1.

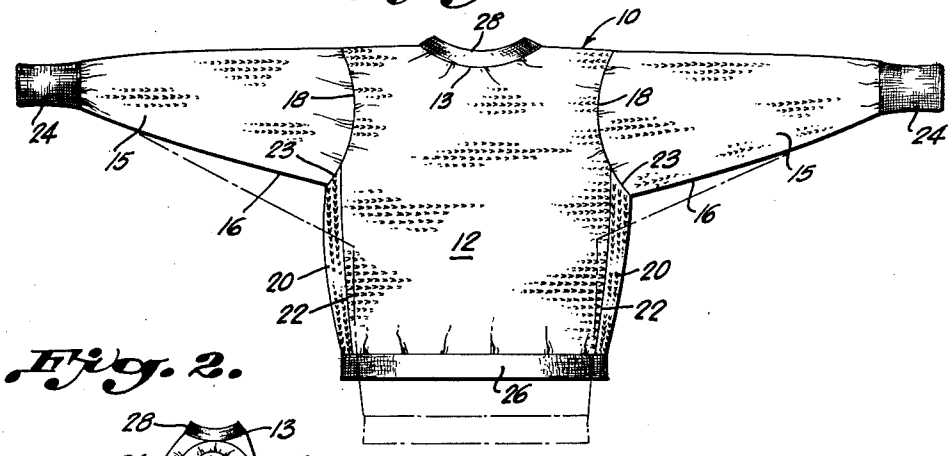


Fig. 2.

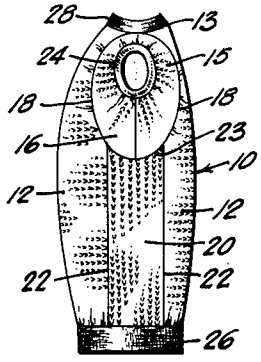
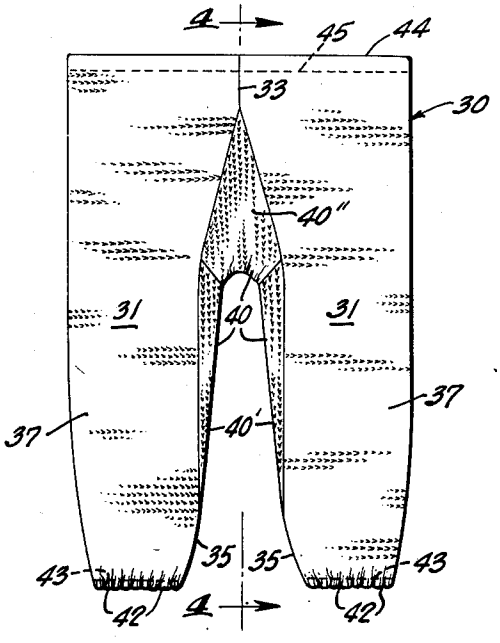


Fig. 3.



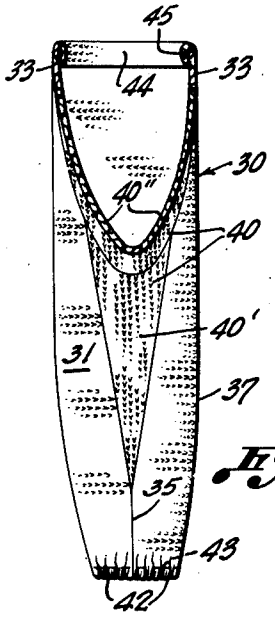


Fig. 4.

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ATHLETIC GARMENT OR THE LIKE

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5 Claims. (Cl. 2—90)

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This invention relates, in general, to wearing apparel, and is directed, more particularly, to improvements in the manufacture and construction of garments popularly known as sweat shirts and sweat pants which are worn by athletes and others engaged in sports and athletic activities, or the like.

The invention deals with the fabrication of such garments of the general character disclosed in U. S. Patent Number 2,126,186, issued August 9, 1938, to one of the present inventors, on an athletic shirt construction in which the knitted courses or wales are disposed substantially horizontally throughout the sleeves and body portion of the garment. Such a garment construction permits the desired amount of give and required stretching in and around the shoulders and under the arms where stretching is necessary and desirable to provide for freedom of movement of the arms and shoulders of the wearer. At the same time, the body portion of the garment is readily capable of lengthwise stretching and, by the reason of the said horizontal disposition of the wales, has the most desirable tendency of reducing in circumference thereby conforming snugly to the body of the wearer after a period of use. Thus, by this construction, a sweat shirt or jersey is especially adapted to give and stretch in the regions where stretching is necessary, and otherwise tends to conform snugly to the body of the wearer below the shoulders where close fitting is most desirable.

By reason of the said horizontal disposition of the wales throughout in the completed form of garment, there is a further most important advantage which has been found to make such garments so much more satisfactory and desirable from a practical standpoint of better wearing qualities than the more common type of sweat shirts, that they have been readily adopted by the trade and are now in extensive use as standard equipment. For example, in washing the ordinary sweat shirt having vertical wales in the body portion thereof, it is well known that due to shrinkage, the garment necessarily becomes much shorter than its original over-all length with the result that the waistband shrinks up to such extent as to be disposed sometimes around the ribs of the wearer and cannot be stretched downwardly to compensate for such shrinkage and fit properly about the waist of the wearer without causing tightening in the shoulders and arms of the garment and otherwise setting up excessive strain not only in the

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fibres thereof but also, in the seams which, of course, too frequently results in objectionable rips, tears and splitting of the seams. In contrast, in a sweat shirt or sweat pants in which the wales are disposed horizontally throughout the body portion thereof, the garment is capable of ready lengthwise stretching after washing or cleaning to the extent that any improper fit due to shrinkage may be readily overcome to restore the garment to substantially its original size, shape and form in which it snugly fits the body of the wearer in use and yet provides for freedom of movement, as aforesaid.

Sweat shirts and sweat pants must necessarily be laundered much more often than ordinary clothing, and in the use of a sweat shirt, for example, in which the wales are disposed horizontally throughout the body portion of the garment, as aforesaid, it has been found that when the garment has been subjected to a considerable number of washing or cleaning operations, there frequently is more accumulated shrinkage in the width of the garment than is desirable or suitable for the most practical and efficient service of the garment over a long and extended period of use.

A primary object of the invention, therefore, is to provide an improved athletic garment of the kind described in which the wales or courses are disposed generally horizontally throughout the body portion of the garment, for the purposes and advantages aforesaid, together with expansion means in the form of gussets, or the like, adapted to compensate for any shrinkage in the width of the garment in any practical number of washing or cleaning operations. The arrangement is such that the aforesaid expansion means is provided in the garment as an integral part of the garment in the initial predetermined shape, form and size thereof, and with said expansion means adapted to yield as necessary for readily stretching the width of the garment in order for the same to assume and retain its initial shape, form and size after any washing or cleaning of the garment.

A further object of the invention is to provide an athletic garment of this character in which the aforesaid expansion gussets are made of elastic or yieldable material having wales or courses extending vertically in the garment substantially normal to the horizontally disposed wales or courses of the material forming the body of the garment, such that any shrinkage in the width of the garment is adapted to be directly counteracted and automatically compensated for

by said expansion gussets by way of an equal uniform expansion in direct opposition to any shrinkage in the width of the garment by reason of the said horizontal disposition of the wales throughout the body of the garment.

Another object of the invention is to provide an improved sweat shirt, or the like, made of material in which the wales extend horizontally throughout the body of the garment together with vertically extending expansion gussets inconspicuously provided along the sides of the sweat shirt, and, more specifically, with such expansion gussets made of expansible material having wales extending vertically in generally normal relation to the horizontally disposed wales of the material forming the body of the sweat shirt, or the like.

A further object of the invention is to provide an improved construction for sweat pants, or the like, made of material in which the wales extend substantially horizontally throughout the body of the garment together with vertically extending expansion gussets along the sides of the legs of the sweat pants, and, more specifically, with such expansion gussets made of expansible material having wales extending vertically in generally normal relation to the horizontally disposed wales of the material forming the body of the sweat pants, or the like.

A more specific object of the invention is to provide an improved construction for sweat pants, such as just described, in which the expansion gussets are inconspicuously disposed along the inner sides of the legs of the sweat pants and in merging relation with the crotch and seat area thereof.

Further objects and advantages, and other new and useful features in the construction, arrangement and general combination of elements of the improved garment constructions of the invention will be readily apparent as the following description proceeds with reference to the accompanying drawings, for purposes of illustration but not of limitation, in which like reference characters designate like parts throughout, and in which:

Fig. 1 is a front elevational view of a completed sweat shirt, or the like, according to the invention, with the arm portions extended, and illustrates the advantageous stretching characteristics not only vertically, but also through the width of the garment by reason of the vertically extending expansion gussets along the sides of the garment; and,

Fig. 2 is a side elevational view of the sweat shirt, or the like, illustrated in Fig. 1.

Fig. 3 is a front elevational view of an improved construction for sweat pants, or the like, in accordance with the invention, and shows the same as provided with vertically extending gussets along the inner sides of the legs of the sweat pants; and,

Fig. 4 is a sectional view on line 4—4 of Fig. 3 showing the construction and arrangement of the vertically extending expansion gussets along the inner sides of the legs and merging with gusset portions in the area of the crotch and seat of the sweat pants, or the like.

It is well known that the most satisfactory garment for use, more particularly, in athletics, training quarters, and the like, is one that fits the body of the wearer as closely and snugly as possible without retarding in any way, perfect freedom of movement of the arms, shoulders and head of the wearer. In providing for such freedom of movement, it is important that the garment snugly fit the body of the wearer not only from the standpoint of appearance, but also because of the fact that loose hanging portions of the garment become a nuisance resulting in discomfort and annoyance to the wearer and otherwise present a means which may possibly be entangled with the arms or legs of another player in close quarters causing possible injury.

Garments having a close, snug fit on the wearer, for the aforesaid advantages and results, particularly athletic garments such as sweat shirts and sweat pants, are readily provided by arranging the material thereof with the wales or courses of the material disposed substantially horizontally throughout the body of the garment. By way of example, Figs. 1 and 2 illustrate such a garment in the form of a sweat shirt, designated generally 10, which is composed of a blank of material defining similar front and back body portions 12 having an intermediate neck opening 13. The blank may include integral sleeves or such sleeves otherwise may be provided as separate sleeve portions 15 in the same or a different color, for example, and united to the body portions 12 in any suitable way. The sleeves 15 are advantageously formed with enlarged arm pit portions 16 and, in the present example, such sleeves are shown as sewed or otherwise secured to the body portions 12 along the seams 18.

In the sweat shirt thus provided, the material forming the front and back body portions 12 and sleeves 15 is so arranged that the courses or wales are substantially horizontally disposed throughout said body portions and sleeves including the enlarged arm pit portions 16 of said sleeves. As illustrated in Fig. 1, this construction provides for the desired amount of give and required stretching in and around the shoulders and under the arms from the normal, unstretched configuration of the garment, shown in full lines, to the stretched condition thereof indicated by the broken lines in Fig. 1. Thus the body portion 12 of the garment is readily capable of lengthwise stretching and by the reason of the said horizontal disposition of the wales, has the most desirable tendency of reducing in circumference thereby conforming more snugly to the body of the wearer after a period of use. It will be apparent, therefore, that in this construction, a sweat shirt is especially adapted to give and stretch in the regions where stretching is necessary, such as the armpits and shoulders, and otherwise tends to conform snugly to the body of the wearer below the shoulders where close fitting is most desirable.

In addition, by reason of the horizontal disposition of the wales throughout the body portion 12 of the sweat shirt, the garment is capable of ready lengthwise stretching after a washing or cleaning operation in a manner to compensate for inordinate shrinkage lengthwise of the garment such that the sweat shirt readily returns to its original shape, size and form, in this respect.

While the garment is thus readily restored to its original, proper and intended length by reason of the horizontal disposition of the wales thereof, as aforesaid, it has been found, after a considerable number of washings, that, as a result such horizontal disposition of the wales, there frequently occurs a greater shrinkage in the width of the garment than may be overcome in an easy and ready restoration of the sweat

shirt to its normal width in the original size, shape and form thereof. In order to overcome this deficiency and to compensate for any such shrinkage in the width of the garment, there are provided special vertically extending expansion gussets 20 along the sides of the sweat shirt.

These vertically extending expansion gussets 20 are provided of suitable elastic or yieldable material in which the wales or courses are disposed generally vertically in the garment and at right angles to the horizontally disposed wales in the material of the body portions 12 and sleeves 15, as aforesaid. Preferably, the expansion gussets 20 are formed of a yieldable, ribbed material in a width of about five inches which has been found adequate for practical requirements in most instances. The ribbed expansion gussets 20 are cut in suitable blanks which are incorporated in each side of the sweat shirt between the adjacent side edges of the body portions 12 by sewing or otherwise securing the same to said side edges, as along the seams 22, and to the arm portions by seams 23.

The garment, thus seamed and shaped, is suitably finished by the application such as sleeve cuffs 24, waistband 26 and a collar or neckband 28. While in the drawings separate cuffs 24 are shown, it is to be understood that the presence of such cuffs is a matter of choice and that the invention is not limited to such construction since a suitable cuff may be provided from an added length on the sleeve which is folded back upon itself and stitched in such folded relation. Likewise, the use of a separate waistband 26 may be dispensed with by providing an added length to the lower edge of the body portion which may be then folded back upon itself and stitched together with pleats, or the like, for suitably shaping and reducing the circumference of the garment in providing for a snug, close fit around the body of the wearer.

Inasmuch as the ribbed expansion gussets 20 have the wales or courses thereof disposed vertically in the garment and substantially normal to the horizontally disposed wales or courses of the material forming the body portions 12, it is quite apparent that any shrinkage in the width of the garment is adapted to be directly counteracted and compensated for by said expansion gussets which necessarily are capable of an equal uniform expansion in direct opposition to any shrinkage in the width of the garment due to the horizontal disposition of the knitted wales in the body of the garment, as aforesaid. Accordingly, by means of such expansion gussets 20 the width of the garment is adapted to readily assume a shape and form which closely approximates or is practically identical to that of the width of the garment in the original size, shape and form thereof. Consequently, even though there may be an inordinate shrinkage in the garment as a result of numerous washings, the sweat shirt is readily stretchable along both its length and width to practically its original size, shape and form, thereby providing a sweat shirt adapted for the most effective and satisfactory service and use in the size, shape and form intended, regardless of the number of times the garment is washed or cleaned.

Figs. 3 and 4 show a garment in the form of a pair of sweat pants having a construction embodying the same principles and teachings of the invention described with reference to the sweat shirt of Figs. 1 and 2. This garment, designated generally 30, is made of two similar blanks 31 forming the legs of the sweat pants. These blanks 31 define the body portions of the garment and are united in any suitable manner as by partial seams 33 extending from the waist at the front and back of the garment. The edges of each blank 31 are secured together at their lower ends by partial seams 35 at the inner sides of the legs 37 of the sweat pants such that the remaining portions of the edges of said blanks define a suitable area for the vertical portions of a longitudinally extending expansion gusset 40. The arrangement is such that the body portions of the blanks 31 are imperforate on the outer sides of the legs 37 while the expansion gusset 40 is inconspicuously secured to the edges of said blanks 31 at the inner sides of the legs 37 and in the crotch and seat area of the sweat pants.

In any event, the material 31 forming the body portion or portions of the sweat pants has the knitted wales or courses thereof disposed substantially horizontally, as shown in Figs. 3 and 4, for the purposes and advantages described with reference to the form of invention shown in Figs. 1 and 2. Likewise, the vertically extending expansion gusset 40 is incorporated in the sweat pants of the present embodiment of the invention in a manner whereby the wales or courses of said expansion gusset 40 extend vertically in generally normal relation to the horizontally disposed wales in the body portions 31 of the sweat pants, as aforesaid. The expansion gusset 40, thus provided, is prepared as a unitary insert, or the like, formed either as a single piece of material or by two similar vertical portions 40' for the longitudinal areas at the inner sides of the legs 37, and which is secured to an intermediate portion 40'' in the area of the crotch and seat of the garment. The lower ends of the legs 37 may be provided with suitable cuffs or equivalent means, in the form of pleats 42 containing an elastic band 43, substantially as shown. Similarly, the waistband may be provided in a suitable fold 44 containing an elastic band, or draw string, or the like, 45.

With the sweat pants 30 thus constructed, it will be understood that by reason of the horizontal disposition of the knitted wales or courses throughout the body portions 31 of the garment, the garment is capable of ready lengthwise stretching after a washing or cleaning operation in a manner to compensate readily for any shrinkage lengthwise of the garment such that the sweat pants readily returns to its original lengthwise size, shape and form.

As described with reference to Figs. 1 and 2, in order to compensate for any inordinate shrinkage in the width of any portion of the sweat pants, the vertically extending expansion 40 is adapted to stretch as necessary to compensate for any shrinkage in the width of the garment due to the horizontal disposition of the knitted wales in the body portions 31 of the garment. The action is substantially similar in that any shrinkage in the width of any portion of the sweat pants 30 is adapted to be directly counteracted and compensated for by the expansion gusset 40 which necessarily is capable of an equal uniform expansion in direct opposition to any shrinkage in the width of the garment due to the horizontal disposition of the wales in the body of the garment, as aforesaid. Accordingly, by means of the expansion gusset 40, the width of the garment in all portions thereof is adapted to readily assume the size, shape and form identical to or ap-

proximating that of the garment as originally provided. Thus, all portions of the sweat pants are readily stretchable along both the length and width thereof to approximately the original size, shape and form of the garment, thereby providing for the most effective and satisfactory service and use of the sweat pants in the intended size, shape and form thereof, regardless of the number of washings or cleaning operations to which the garment may be subjected.

While the invention has been described in detail with specific examples of the improved garment constructions and the method of making the same, such examples are intended as illustrations only, inasmuch as it is apparent that various modifications within the spirit and scope of the invention may be provided without departing from the teachings or essential characteristics thereof. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

What is claimed and desired to be secured by the United States Letters Patent is:

1. A garment of the class described comprising a section of knitted material having its knitted courses extending generally horizontally in the garment body such that said garment body is subject to a reduction in width when laundered or stretched longitudinally, and an expansion gusset included in said garment body, said expansion gusset being made of knitted material having knitted courses in generally normal relation to said horizontally extending knitted courses of the garment body so as to expand in a manner to compensate for said reduction in width of the garment body.

2. A shirt such as a sweat shirt, or the like, comprising a section of knitted material having its knitted courses extending generally horizontally in the body of the shirt such that said body of the shirt is subject to a reduction in width when laundered or stretched longitudinally, and a vertically extending expansion gusset included in said body of the shirt, said expansion gusset being made of knitted material having knitted courses in generally normal relation to said horizontally extending knitted courses in the body of the shirt so as to expand in a manner to compensate for said reduction in width in the body of the shirt.

3. A shirt such as a sweat shirt, or the like, comprising a section of knitted material having its knitted courses extending generally horizontally in the body of the shirt such that said body of the shirt is subject to a reduction in width when laundered or stretched longitudinally, and vertically extending expansion gussets provided at opposite sides of the body of the shirt, said expansion gussets being made of knitted material having knitted courses in generally normal relation to said horizontally extending knitted courses in the body of the shirt so as to expand in a manner to compensate for said reduction in width in the body of the shirt.

4. Sweat pants, or the like, comprising a section of knitted material having knitted courses extending generally horizontally through the legs of the sweat pants such that said legs of the sweat pants are subject to a reduction in width when laundered or stretched longitudinally, and vertically extending gussets included in said legs of the sweat pants, said gussets being made of knitted material having knitted courses in generally normal relation to said horizontally extending knitted courses in the legs of the sweat pants so as to expand in a manner to compensate for said reduction in width in the legs of the sweat pants.

5. Sweat pants, or the like, comprising a section of knitted material having knitted courses extending generally horizontally through the sweat pants such that the legs, crotch and seat areas of the sweat pants are subject to a reduction in width when laundered or stretched longitudinally, an expansion gusset included in said sweat pants comprising a vertical gusset portion extending along the inner side of each leg of the seat pants and merging with an intermediate gusset portion in the crotch and seat areas of the sweat pants, said expansion gusset being made of knitted material having knitted courses in generally normal relation to said horizontally extending knitted courses in the sweat pants so as to expand in a manner to compensate for said reduction in width in the legs, crotch and seat areas of the sweat pants.

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