June 24, 1924. 1,499,265

L. M. ULLMAN ET AL

REDUCING GARMENT

Filed March 27, 1924 2 Sheets-Sheet 1

Fig. 1.

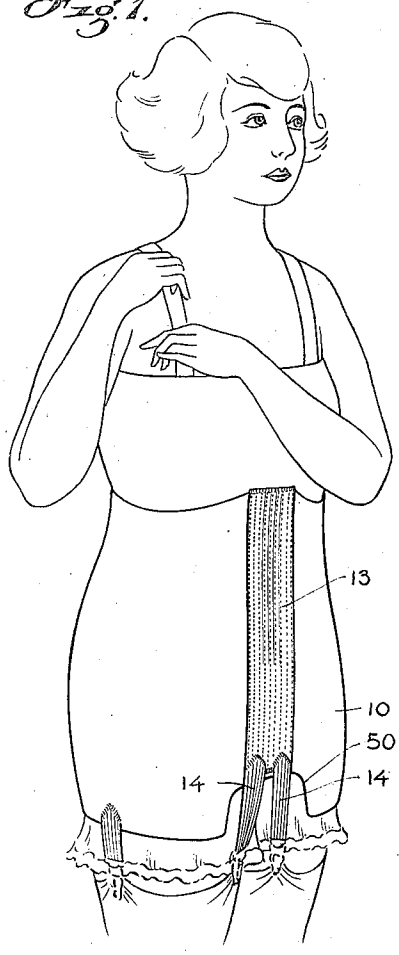


Fig. 4.

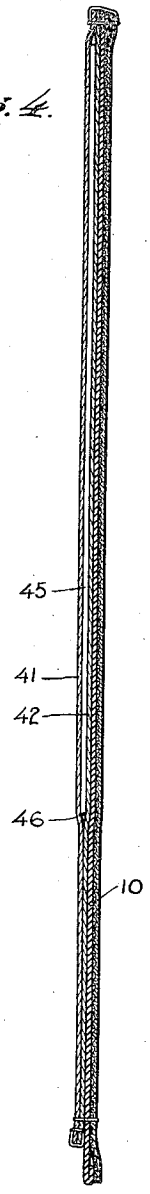


Fig. 5.

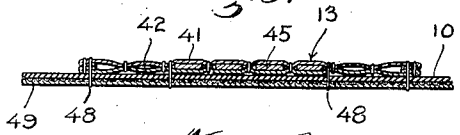


Fig. 6.

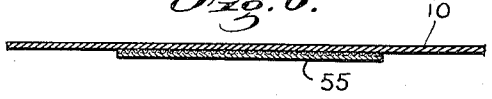
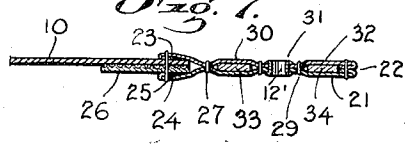


Fig. 7.



INVENTORS
Louis M. Ullman
BY David A. Lieder
William S. Gluck
ATTORNEY

June 24, 1924. 1,499,265

L. M. ULLMAN ET AL

REDUCING GARMENT

Filed March 27, 1924 2 Sheets-Sheet 2

Fig. 2.

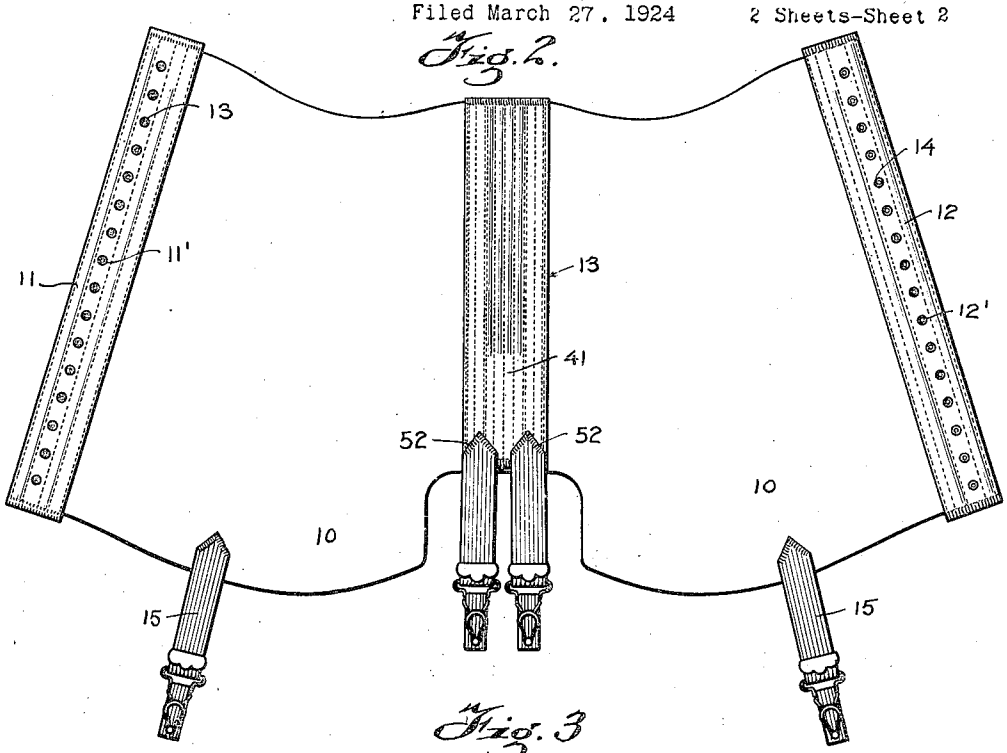
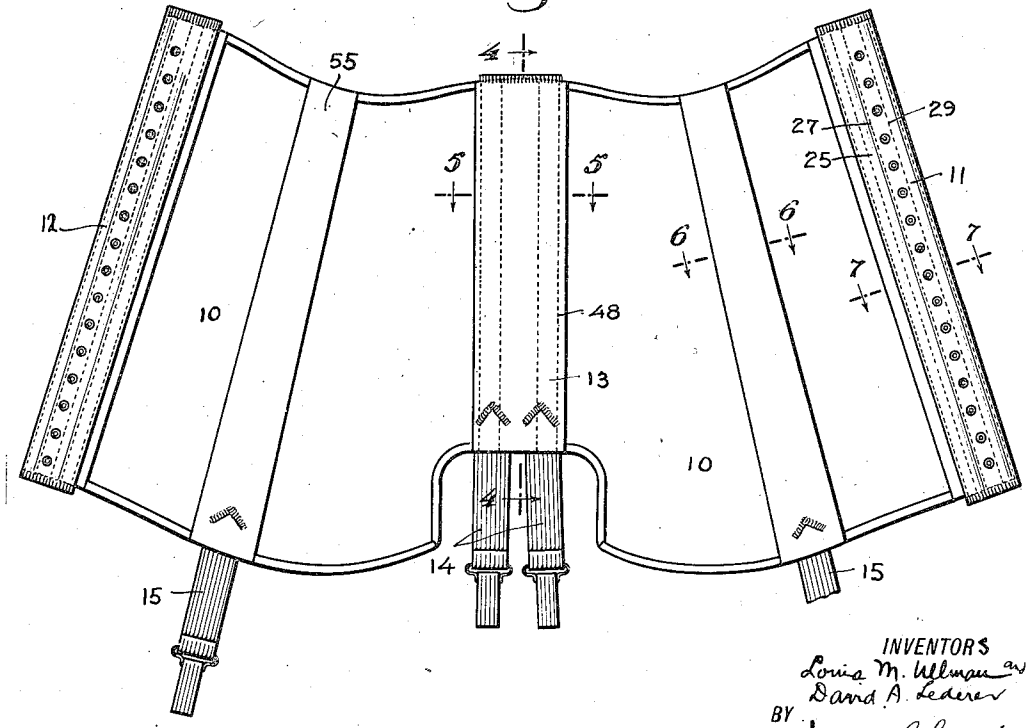


Fig. 3



INVENTORS
Louis M. Ullman
and
David A. Lederer
BY
Milton J. Gluck
ATTORNEY

Patented June 24, 1924. 1,499,265

UNITED STATES PATENT OFFICE.

LOUIS M. ULLMAN AND DAVID A. LEDERER, OF NEW HAVEN, CONNECTICUT.

REDUCING GARMENT.

Application filed March 27, 1924. Serial No. 702,254.

To all whom it may concern:

Be it known that we, LOUIS M. ULLMAN and DAVID A. LEDERER, citizens of the United States, and residents of the city and county of New Haven, State of Connecticut, have invented certain new and useful Improvements in a Reducing Garment, of which the following is a specification.

This invention relates generally to a reducing garment and more particularly to a garment which in its structure and in its manner of use resembles somewhat a garment of the corset type.

The value of rubber as a material from which to form a garment to be employed for producing a reduction in weight as well as in figure when tightly associated with a portion of the body of the wearer and more particularly for producing a free perspiration consequent upon wearing such a garment when indulging in work or exercise is well known. The employment of such material for such purposes carries with it, however, certain practical difficulties in both manufacture and use, resulting from the well-known characteristics of sheet rubber on the one hand to stretch, and on the other hand to tear easily, particularly along a line of puncture.

A garment such as a reducing corset has four factors which must be taken into consideration, namely: (first) that it shall be adjustable to the figure (secondly) that it shall retain the parts of the body adjacent thereto under conditions which will result most effectively in the desired reduction in weight as well as in measure, and (thirdly) that it shall be comfortable to the wearer, and (fourthly) that it shall at the same time serve to carry the hose supporters.

Where we have attempted hitherto to make a garment of this character of two pieces, the ends of which are to be variably spaced and associated along the back as well as along the front as by lacing, hooks and eyes or clasps, the problems incident to the employment of rubber are multiplied because of the difficulties that arise and the points of weakness that ensue, when it is attempted to anchor, for instance, the structure that is to carry the stays or the hooks and eyes or similar fastening means along four ends, since as already pointed out sheet rubber will tend to tear if punctured, when pressure is applied at such points of puncture as when stitches or eyelets are passed therethrough.

One of the important objects of our invention, therefore, is the provision of a rubber garment simulating a corset which is made of one piece of rubber whereby the adjustment of the garment necessitates the application of strains along only two of the lines along which the strain inducing means are anchored.

In addition to this, where a rubber garment is to take the form of a corset, as contemplated by us, there must be associated with such rubber garment a means for supporting the stockings and the stresses and strains incident to the supporting of the stockings directly from the rubber fabric tend on the one hand to form an unsatisfactory support because of the elastic factor inherent in rubber and on the other hand will tend to weaken and possibly tear the fabric.

Another important object of our invention, therefore, is the provision of an arrangement whereby the hose supporters are anchored from the corset construction in a way that takes the strains and stresses incident to supporting the stocking from being applied directly to the rubber fabric and at the same time distributes it over an extremely wide area.

Furthermore, we have found that the advantages accruing from the employment of rubber as the fabric for the purposes and in the manner suggested, will tend to reduce the weight and consequently the abdomen. These advantages are to some extent counteracted by the fact that the manner of associating the stocking supporters with the reducing garment will tend to produce a bulge at a point in the garment that is adjacent the abdomen, and where we have attempted to counteract this tendency by associating with the garment a stiffening means, such stiffening means if positioned centrally of the front of the garment will tend to curve outwardly at its lower end when the wearer assumes a sitting position. For the purposes of overcoming these objections we have therefore provided an arrangement whereby the hose supporters are so associated with the garment as to cause the front thereof to at all times position itself as to keep the abdomen in its desired state of depression and flatness.

A still further object of our invention is the provision generally of a garment of the character set forth, which is simple in construction, durable and effective in use, inexpensive to manufacture, and comfortable to the wearer.

For the attainment of these objects and such other objects as may hereinafter appear or be pointed out, we have illustrated one embodiment of our invention in the drawings wherein—

Fig. 1 illustrates our garment reducer in position on a wearer;

Fig. 2 is an elevational view of the front face of the garment with garment fully extended.

Fig. 3 is an elevational view of the rear face of the garment, similar to that of Fig. 2;

Fig. 4 is a vertical section taken centrally longitudinally of the garment on the lines 4—4 of Fig. 3;

Fig. 5 is a horizontal section through a detail taken on line 5—5 of Fig. 3 through the central portion of the garment;

Fig. 6 is a horizontal section taken on line 6—6 of Fig. 3 through a portion of the garment along one of the sides thereof, and

Fig. 7 is a section taken on line 7—7 of Fig. 3 through the assembly of one of the ends of the garment.

Upon viewing the figures of the drawing, it will be observed that the body fabric 10 of the garment is in the form of a single length, and is preferably made of an elastic material such as pure or gum rubber, which material we have found has the characteristics which it is desired that a garment of this character have. This material, however, has very little body and therefore is not in any respect what we might term form-sustaining; that is, it will crumple up unless it is held distended and its manner of support so as to give it the desired shape and contour and to maintain such shape will be understood as this application is read.

The body fabric 10 is provided at each of its ends with the longitudinally positioned assembly 11 or 12 which in the embodiment illustrated are provided with longitudinal rows of eyelets 11′ and 12′ which serve in connection with a lace (not shown) to secure and maintain the garment about the body. In actual practice we find that with the lace in position, the garment can be put on and taken off as if it were a "step-in", that is, the garment is at all times an endless one and to position it about the body, the wearer steps into it and then pulls it up into its desired position and the body material 10 which we employ permits of this operation because of its elasticity. The lace or other fastening means that may be employed is then tightened or fastened, as the case may be, so as to cause the garment to tightly associate itself with the body for the purposes intended. In this manner we maintain the garment in its laterally extended condition and in actual practice the fastening means, that is, the lace, is positioned at the back and as will be observed upon viewing Fig. 1, this manner of use presents a continuous front to the garment. Due however to the non-rigid characteristics of the material 10, there will be a tendency for this garment front to crumple up or to otherwise not maintain its extended position. At 13 in Fig. 1, we illustrate as associated with the front of the garment, an assembly strip which as a whole is in the form of a construction which on the one hand while permitting a give with the body as the body is twisted, turned and bent, will at the same time tend to remain at all times in its longitudinally extended vertical condition and will return thereto when permitted. This assembly strip 13 will therefore tend to so maintain the body and will also tend to compress or depress the abdomen in contact with which it is positioned.

Garments of this corset character must necessarily have associated with them some means of supporting the hose as is generally true of the conventional corset and we have found that the tendency of these hose supporters, or at least of some of them, is to produce a bulge in the corset in the front due to the downward pull upon the corset at points positioned to the side of the front central line therethrough, and this is extremely undesirable. In addition, we have discovered that there will be a tendency for the lower end of the assembly strip 13 to buckle outwardly whenever the wearer assumes a sitting position and this will not only reduce the effectiveness of the corset as a whole but will detract from the appearance thereof.

Upon viewing Figs. 1, 2 and 3 of the drawings, it will be observed that we have eliminated these objections by associating two of the supporters 14, 14 directly with the lower end of this longitudinal assembly strip 13, so that on the one hand the supporters do not cause a bulge along the corset front, and on the other hand, these supporters maintain the assembly strip 13 in its longitudinally extended position and against buckling outwardly at its lower end.

The other supporters 15, 15 are supported from the garment from a position intermediate the end assemblies 11, 12 and the central one 13 as clearly shown in Figs. 2 and 3.

Upon viewing Fig. 7, it will be observed that we here illustrate the details of construction of one of the assemblies 11 or 12 which form reinforces for the side edges of the garment and through which are passed or to which are attached the fastening means which are there described by way of ex-

ample as laces. This assembly 11 or 12 comprises generally two superposed layers of fabric 20 and 21 secured together along their outer ends by inturning these ends and running a row of stitches therethrough and at their inner ends as shown by inturning the ends 23 and 24 and securing them together and to the body fabric 10 in any desired or preferred manner as by stitches 25 which passes through all the layers. It will be observed that, as indicated in Fig. 7, we have associated a strip 26 of friction cloth, with one face of the body fabric preferably by adhesion, the stitches 25 being passed therethrough also. The superposed layer of fabrics 20 and 21 are secured together further at spaced points intermediate their edges and longitudinally thereof as by stitches 27 and 28 and 29, these rows of stitches on the one hand securing these layers together at the points indicated, and on the other hand forming three longitudinal sections 30, 31 and 32, the inner and outer ones of which serve as pockets within which are received resilient strips preferably made of extremely flexible steel 33 and 34, the function of which is to keep the assembly 11 and 12 and consequently the corset ends longitudinally extended along these edges while at the same time permitting of a ready yielding to the changes in the positions of the various parts of the body. The intermediate section 31 is provided with the eyelets 11′ and 12′ already referred to in this manner. We support this assembly from the body fabric in a manner as to place the least strain thereon and at the same time keep the fabric in its longitudinally extended position and additionally secure the eyelets thereto in such a manner that their association with the members 11 and 12 are at their maximum effectiveness. The assembly at both ends may be made of the same character and the description of one suffices for the other.

The assembly longitudinally of the garment is made as follows:

Upon viewing Figs. 4 and 5, it will be observed that we provide upon one face of the corset a composite attachment 13 and to which we have applied the expression assembly strip and that this attachment comprises superposed layers of fabric 41 and 42 which are first secured to each other by a plurality of rows of longitudinally extending stitches 43, nine such rows being illustrated in the drawing. The stitches not only serve to secure the two layers assembled but also form a number of pockets, the four intermediate ones of which in the illustrated embodiment serve to receive and hold the flexible stays or strips 45 preferably made of steel and which extend substantially from the top of assembly strip 13 and terminate at the point 46 (see Fig. 4) at a considerable distance above the bottom. This assembly strip 13 is secured in position on one face, namely, the outer face of the body fabric 10 by a plurality of rows of stitches 48 passing through the superposed layers 41 and 42 and their intermediate inturned ends and the body fabric 10 and through the friction strip 49 which is adhesively secured to the opposite face of the body fabric 10. These stitches 48 are positioned as closely as is practicable to the stitches 43, already referred to.

The garment is preferably cut and shaped so that it may most conveniently be wrapped around the figure and upon viewing Fig. 1 of the drawing, it will be observed that the body fabric is cut away at 50 and at a point centrally of the front of the garment and opposite the point where the assembly strip 13 terminates and the assembly strip itself is thus made to terminate short of the line which forms the bottom of the garment for most of its length. By this arrangement, we provide on the one hand for the massing of flesh at the point indicated and on the other hand for a more convenient manner of associating the supporters 14—14 with the garment. These supporters, as will be observed upon comparing Figs. 2 and 3 of the drawing, are attached directly to the assembly strip 13 by rows of stitches 52 which pass completely through the assembly strip as well as through the body fabric 10 and the friction strip 49 which action is permitted by the fact that the corset steels 45 do not extend all the way down. The remaining supporters 15—15 are preferably attached directly to the body fabric 10 by stitches which pass therethrough as well as through friction strips 55, 55 adhesively secured to the opposite faces of the body fabric and longitudinally thereof from top to bottom and at intermediate points, all as indicatd in the drawings.

From the description thus far given, it will be observed that the invention provides for placing upon the fabric 10 as little of the strains and stresses as possible, and of reinforcing those points at which strains are applied or through which stitches or other fastening means are passed, and for this reason, as pointed out, we employ friction strips adjacent all points through which stitches are to be applied. In addition to this, it will be observed that we have provided an arrangement whereby the fabric is maintained not only in its laterally extended position but also in its longitudinally extended position both along its edges and also centrally longitudinally of its front. It will also be observed that we have associated the supporters and the longitudinally centrally extending assembly so that a bulge on the front of the garment is on the

one hand prevented and an outward bulging of the lower end of the assembly strip 13 is also prevented.

Having thus described our invention and illustrated its use, what we claim as new and desire to secure by Letters Patent is—

1. As a new article of manufacture, an open-back, closed-front rubber reducing corset comprising a body-strip consisting of a single length of sheet-rubber, with its ends positioned adjacent to each other at the back of the corset, flexible stay-casings applied to the respective ends of the body-strip, means applied to the said stay-casings for adjustably fastening the ends of the body-strip together, an assembly-strip applied to the front face of the body-strip midway the length thereof and extending from its upper to its lower edge, a complementary centrally-arranged reinforcing strip adhesively secured to the inner face of the said body-strip back of the assembly-strip, which is anchored through the rubber body-strip to the said reinforcing strip, and hose-supporters secured to the bottom of the assembly-strip on each side of the median line thereof, whereby the draft on the said supporters is removed from the body-strip and devolved upon the assembly-strip, and the assembly-strip is drawn flat over the abdomen and prevented from buckling.

2. As a new article of manufacture, an open-back, closed-front rubber reducing corset comprising a body-strip consisting of a single length of sheet-rubber, with its ends positioned adjacent to each other at the back of the corset, flexible stay-casings applied to the respective ends of the body-strip, means applied to the said stay-casings for adjustably fastening the ends of the body-strip together, an assembly-strip applied to the front face of the body-strip midway the length thereof and extending from its upper to its lower edge, a complementary centrally-arranged reinforcing strip adhesively secured to the inner face of the said body-strip back of the assembly-strip which is anchored through the rubber body-strip to the said reinforcing strip, reinforcing strips adhesively secured to the inner face of the body-strip extending from the upper to the lower edges thereof, and located intermediate between the ends and the middle of the said body-strip, hose-supporters secured to the lower end of the assembly-strip on each side of the median line thereof, whereby the draft on the said supporters is removed from the body-strip and devolved upon the assembly-strip, and the assembly-strip is drawn flat over the abdomen and prevented from buckling, and hose-supporters applied to the lower ends of the said intermediate strips, whereby the strain is devolved upon them, instead of upon the sheet-rubber body-strip.

In testimony whereof, we have hereunto signed our names.

LOUIS M. ULLMAN.
DAVID A. LEDERER.