

Jan. 5, 1937.

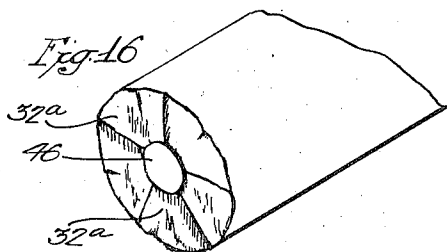
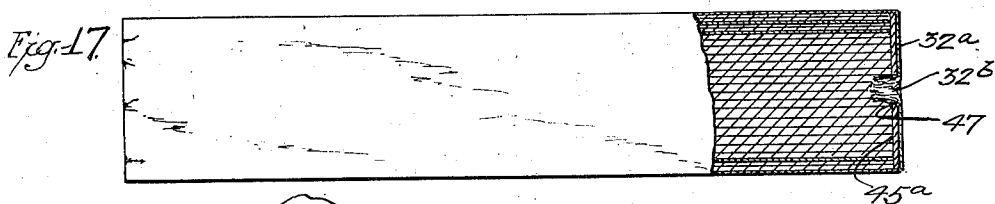
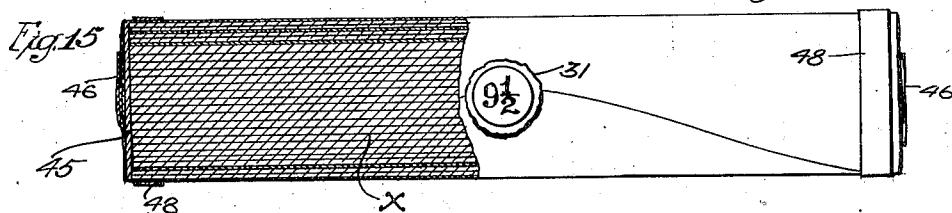
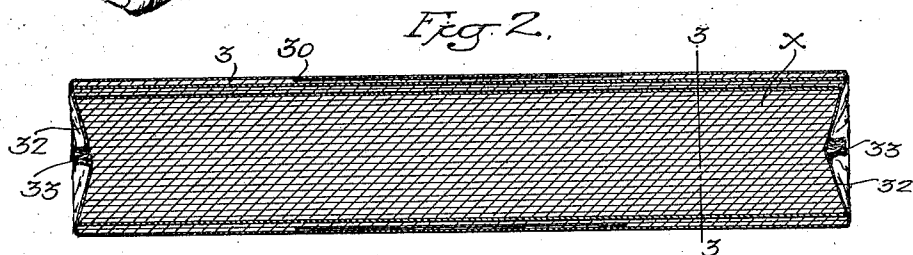
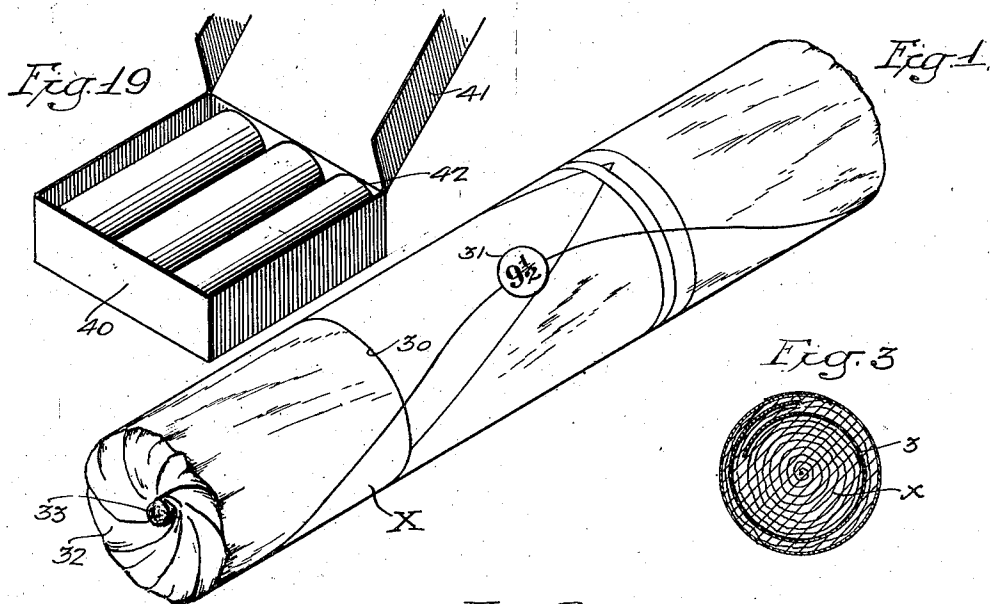
H. C. ABERLE

2,067,111

STOCKING PACKAGE

Filed July 8, 1933

3 Sheets-Sheet 1



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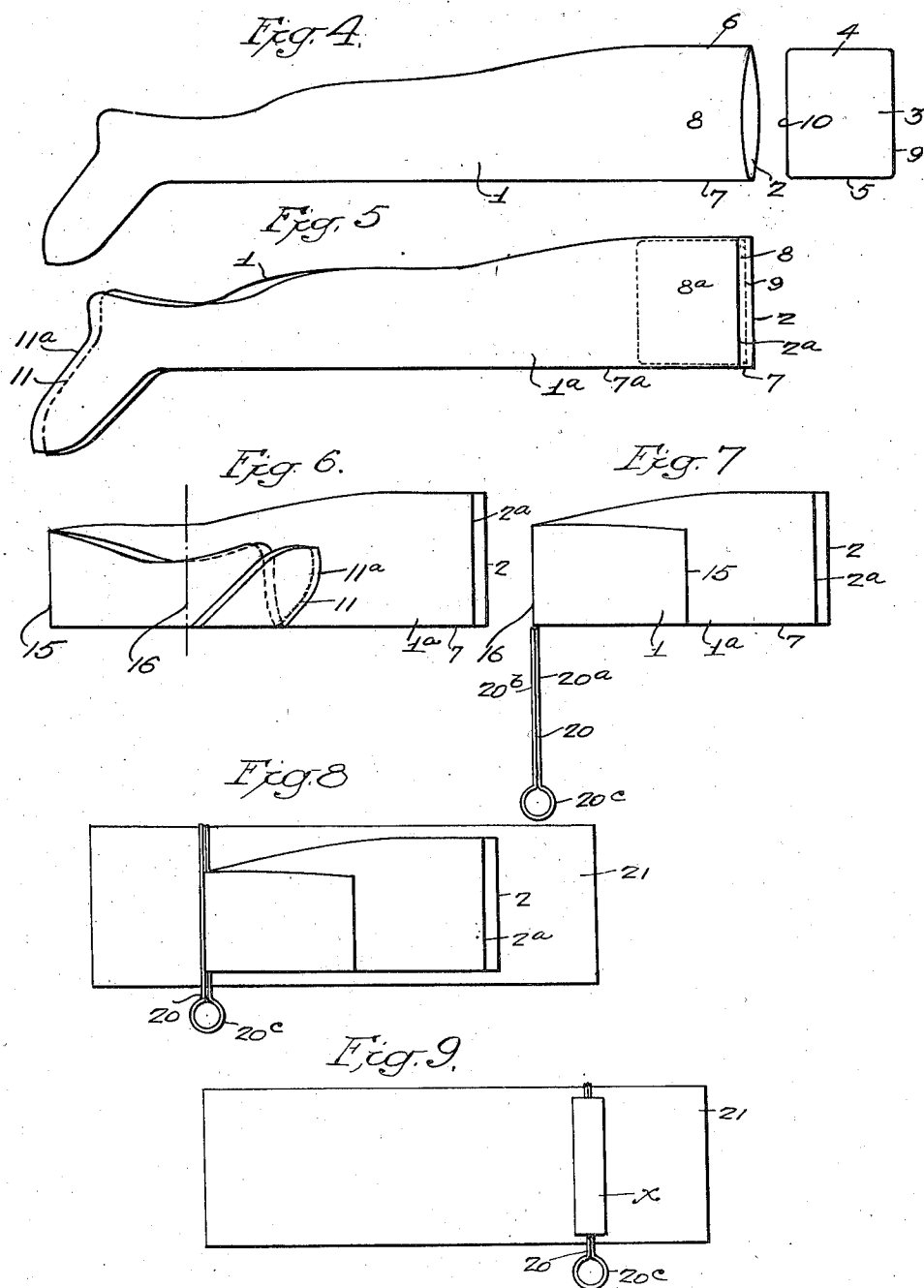
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3 Sheets-Sheet 2



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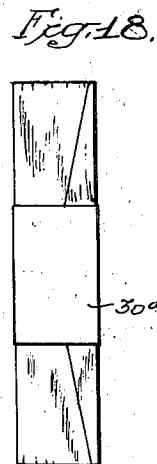
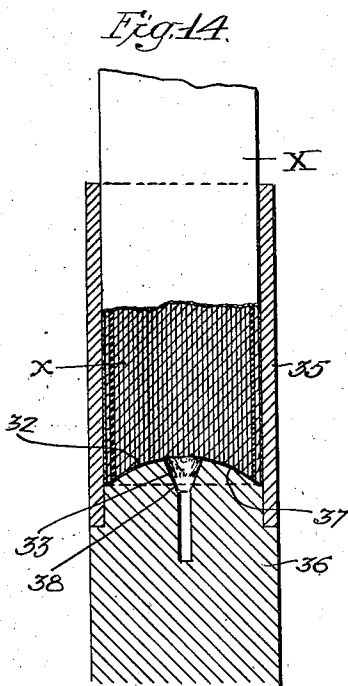
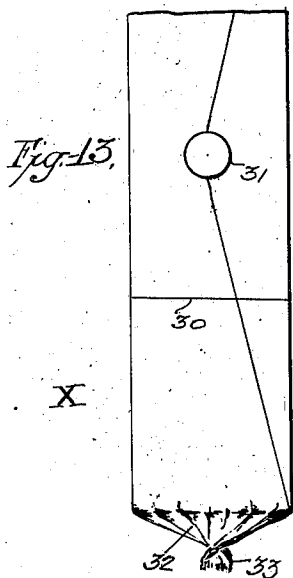
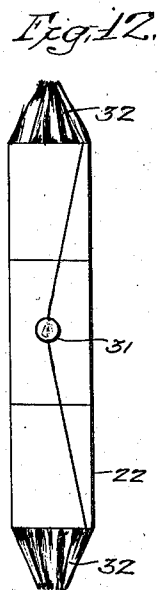
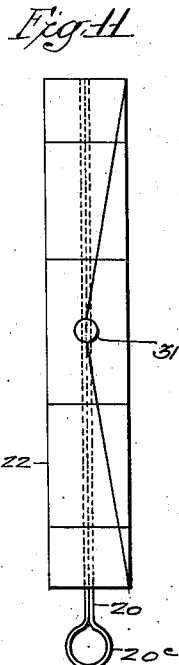
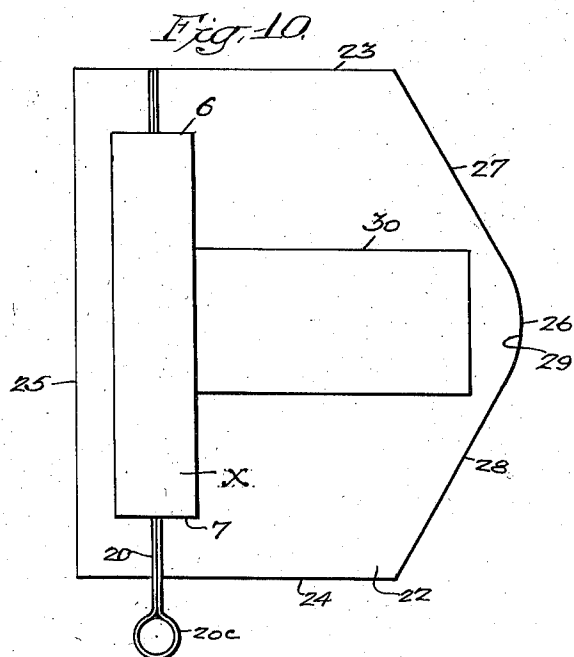
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STOCKING PACKAGE

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3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

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STOCKING PACKAGE

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Application July 8, 1933, Serial No. 679,565

5 Claims. (Cl. 206—46)

This invention relates to a unique package for merchandising hosiery of all kinds for men, women and children, and particularly high grade sheer hosiery, whereby the goods contained in the package may be displayed in a manner to divulge the quality and other characteristics of the hosiery and to exhibit any pattern or design that may be present in the fabric, without necessitating the prospective customer's or salesperson's fingering of the goods or the running of one's hand into the stocking, as is customary in negotiating hosiery sales and by which sheer hosiery of the more delicate expensive grades is frequently damaged, as by a ring on the person's finger, roughness of the skin, fingernails, or hang nails catching in and breaking the fine thread of which the stitches or knitted loops of the delicate stocking fabric are composed.

One object of the invention is to provide a transparent sealed package which obviates direct handling of the goods and thereby warrants the manufacturer's guaranteeing the contents of the package against imperfections, in view of the package being sealed at the factory and opened only by the ultimate consumer after sale of the package has been consummated, thus assuring the manufacturer, the merchant, and purchaser that the pair of stockings contained in the package has not been promiscuously handled and thereby damaged.

Another object of the invention is to construct the package in such a manner that the goods contained therein will not be permitted to shift relatively to and within the package during transportation, and whereby all portions of the contents of the package will be so firmly maintained relative to each other that one portion of the pair of stockings can not rub against another portion to roughen or otherwise damage the delicate fabric.

Another object of the invention is to produce the package in cylindrical form, which, in addition to the above noted features, enables the manufacturer to assemble a number of packages in close firm adjacent relation to each other within a single outer container, such for example as a box with a removable or hinged cover, whereby the stockings in the several packages contained within the box may be presented to the customer for comparison of the stockings contained in the various packages, for meeting the present day consumer's demand for matched pairs of stockings as well as matched stockings of a pair, in order that the purchaser of the assembled unit may utilize separate stockings

from different pairs in event of any of the stockings wearing out before its original mate.

Another object of preparing the stocking packages in rolled form is to facilitate shipping of individual pairs by mail, in regular commercially accepted mailing tubes, each rolled package being of a size to be readily received and contained within such a mailing tube and at the same time preventing roughening or damaging of the fabric in transportation as above noted.

Another feature attending the assembling of the rolled packages as a unit in the single outer container is that each of such containers with a number of pairs of stockings therein is made saleable as a gift package which may be readily mailed and delivered to the recipient without injury to the stockings.

Another object of the invention is to provide each rolled package with reinforcing means for maintaining the package in cylindrical form and to make the packages uniform in size.

The invention also relates to a method for producing the rolled packages, all of which will be fully disclosed hereinafter, reference being had to the accompanying drawings, of which:

Fig. 1 is a perspective view of one of the cylindrical packages containing a single pair of stockings;

Fig. 2 is a longitudinal sectional elevation through the package shown in Fig. 1;

Fig. 3 is a transverse sectional elevation taken on the line 3—3, Fig. 2;

Figs. 4 to 14 inclusive diagrammatically illustrate the steps in the method of producing the rolled packages;

Fig. 15 is an elevation of a modified form of rolled package with one end shown in section;

Fig. 16 is a perspective view of one of a rolled package showing one means of sealing the ends thereof;

Fig. 17 is a longitudinal elevation of another modified form of the invention with one end broken away and in section;

Fig. 18 is an elevation of another modified form of sealing the rolled packages; and

Fig. 19 illustrates a plurality of the rolled packages assembled in a single outer container.

Referring now to Figs. 4 to 14 inclusive, the first of said figures illustrates a single stocking laid out flatly throughout its full length with the top or welt end 2 opened to receive a stiffening element 3 which, for the purposes of the present invention, is preferably composed of what is commercially known as "book paper"

and which may be composed of a fairly stiff grade of "bond" paper, or any suitable equivalent.

As shown in Fig. 4, the stiffening element 3 is of rectangular form and of a size adapted to be readily slipped into the opened end 2 of the stocking 1 with the opposite longitudinally extending edges 4 and 5 of the stiffening element 3 disposed substantially parallel to the longitudinally extending edges 6 and 7 of the upper or welt portion 8 of the stocking 1. The stiffening element 3 is preferably placed in the stocking 1 with its outermost transversely extending edge 9 spaced slightly inwardly from the open top edge 2 of the stocking, as shown in Fig. 5, the other transversely extending edge 10 of the element 3 paralleling the said outermost edge 9 thereof and being disposed well within the top portion 8 of the stocking. Thus, the said top portion 8 of the stocking is stiffened laterally and longitudinally to the extent of the area of the stiffening element 3.

The second stocking 1a of a pair is then laid flatly on top of the stocking 1 with the top edge 2a of the stocking 1a spaced inwardly from the top edge 2 of the stocking 1, as clearly shown in Fig. 5, the foot portions 11 and 11a of the stockings 1 and 1a respectively being correspondingly offset one to the other while the longitudinal front edges 7 and 7a of the stockings 1 and 1a respectively are substantially aligned one with the other, as clearly shown in said figure.

The pair of stockings 1-1a is then folded upon itself on a transversely extending line 15 passing through the calf portions of the superposed stockings 1-1a, as clearly shown in Fig. 6, whereupon the foot portions 11 and 11a of said superposed stockings are folded inwardly over the leg portions on a line substantially coincident with the front edges 7 and 7a of the stockings 1 and 1a respectively.

The superposed stockings 1-1a are then folded a second time on a transversely extending line 16, intermediate the first said line of fold, indicated at 15 in Fig. 6, and the tops 8 and 8a of the stockings.

With the stockings folded in this manner and lying flatly, as indicated in Fig. 7, a rolling element, indicated at 20 in Fig. 7, which is formed of a continuous length of spring wire and comprises a pair of substantially parallel rectilinear leg portions 20a and 20b connected together at and by a circular key-head portion 20c, is passed transversely of the folded stockings with the prong 20a disposed inside the fold of the stocking at the line 16 and the second prong 20b outside the fold, as clearly indicated in Fig. 8, the folding element in the present instance being of a resilient nature permitting the spreading of the prongs 20a and 20b to receive the folded stockings therebetween, after which the two prongs resiliently maintain the folded stockings firmly therebetween.

The steps so far described may be carried out on any substantially flat surface, such as the top of a table or bench, but preferably such steps are effected on a board or other surface 21 elevated to some extent above a table or bench surface. The elevated surface 21 is preferably of a width slightly greater than the width of the widest or top portions 8, 8a of the stockings, the key-head portion 20c of the rolling element 20 being disposed beyond one of the longitudinal edges of the elevated surface 21 on which

the folded stockings 1-1a are disposed in the manner illustrated in Fig. 8.

The head 20c is then employed as a key for rotating the rolling element or mandrel 20 whereby the folded stockings are firmly rolled in the substantially spiral-clock-spring fashion about the mandrel 20, which is disposed at the center of the roll as clearly illustrated in Fig. 9.

After the stockings have been wound on the mandrel 20 in the manner illustrated in Fig. 9, the firmly rolled mass x is then placed upon a flatly lying sheet of transparent material, such as 'Cellophane', indicated at 22 in Fig. 10, with the longitudinal edges 6 and 7 of the inter-rolled stockings 1 and 1a substantially parallel to the longitudinal edges 23 and 24 of the transparent sheet 22, and with the axis of the mandrel 20 substantially parallel to one transversely extending and substantially right angle edge 25 of the transparent sheet 22, the opposite transversely extending edge 26 of the said sheet 22 being disposed at converging angles 27 and 28 to the edges 23 and 24 respectively, said converging edges being connected by a central arcuate edge 29.

Placed on top of the transparent sheet 22, in one form of the invention, is a label 30 which may bear the trade mark and/or name of the manufacturer and any other desirable identifying data, or the guarantee of the manufacturer stating that the contents of the package has been thoroughly inspected and guaranteed against imperfection.

With the elements assembled in the manner illustrated in Fig. 10, the edge 25 of the sheet 22 is rolled up over the periphery of the stocking roll x, after which rolling of the two together is continued by rotation of the mandrel 20, whereby the assemblage is reduced to the form illustrated in Fig. 11, after which any suitable seal 31 may be applied to the free edge 26 of the sheet 22 for holding the said free edge firmly to the underlying layer of the transparent encasing sheet 22.

Due to the straight smooth freely slidable nature of the mandrel 20, said element can be and is then removed from the center of the stocking roll x, leaving the stocking roll x firm and intact within the outer rolled transparent encasing sheet 22.

In one form of the invention the ends of the outer sheet 22 may next be moistened or provided with a quick drying liquid glue or cement, and then crimped, beyond the edges or ends 6 and 7 of the stocking roll x, in the manner illustrated at 32, 32 in Fig. 12, after which the said crimped ends 32, 32 are twisted about the axis of the roll as indicated in Fig. 13, into a tightly twisted teat 33 projecting axially from each end of the roll.

In some instances the projecting teat is extremely long, in which case the outer portion thereof may be removed by cutting with a pair of shears or in some other suitable manner, leaving a relatively short portion of the teat projecting from the crimped portions 32 at the ends of the roll.

In order to conceal the crimped twisted ends of the roll and the twisted teats thereon the opposite ends of the roll may be successively placed within the open end of a sleeve 35, as illustrated in Fig. 14, the opposite end of said sleeve being closed by a plug or head 36 having a convexed or shallow conical face 37, in the center of which is formed a tapered opening 38.

The rolled package X, comprising the spirally rolled pair of stockings and the spirally rolled stiffening element 3, which constitutes the primary stocking roll x, with the spirally rolled "Cellophane" or other transparent encasing sheet 22 disposed outside the stocking roll x and sealed thereon by the sealing element 31, is inserted in the open mouth of the sleeve 35 and pressed down on to the convexed surface 37 of the head or plug 36, the teat 33 entering the tapered opening 38 in said convexed surface, whereupon, by axial pressure being applied to the package X and by rotation or oscillation of the package X within the sleeve 35, the crimped and twisted ends of the package X are pressed inwardly, in concave relation to the transverse planes of the extreme ends of the package X, as illustrated in Fig. 14, the extreme ends of the teats 33 being disposed inwardly beyond or substantially coincident with the said transverse planes of the ends of the package.

After each of the opposite ends of the package X has been processed in the manner above noted the then finished package assumes the form illustrated in Figs. 1, 2 and 3, ready for shipping, packing, or assembling in units in the manner above noted.

Fig. 19 illustrates a package comprising a box 40 in which three of the packages X, X are shown as assembled in substantially parallel relation to each other, the cover 41 of the box 40, in the present instance being illustrated as hinged to the body of the box along one upper edge 42 thereof, being opened in a manner to display the contents of the three rolls X, X in close laterally abutting relation to each other for comparison of the contents of the packages X, X, in the manner above noted.

As shown in Figs. 2 and 3, the stiffening element 3 extends completely around and is included within the spirally wound primary stocking roll X, composed of the stockings 1 and 1a, and extends, as illustrated in Fig. 2, from end to end of the package X, thereby giving the package a truly cylindrical form and affording a stiffness resisting longitudinal and/or lateral collapse of the package.

Fig. 15 illustrates an instance where, in addition to the stiffening element 3, the opposite ends of the roll are respectively provided with circular discs 45 of a diameter substantially equal to that of the primary roll x, said discs being disposed in abutting relation to the opposite ends of the stocking roll x. In this particular instance the overhanging ends or edges of the transparent sheet 22, in place of being crimped and twisted in the manner above noted, are folded segmentally as illustrated at 32a, Fig. 16, after which a sealing element 46 is applied at the center of the end of the package for holding the ends of the segments 32a, 32a firmly in position, said sealing element 46 preferably being of the gummed label type.

In another modified form of the invention, as illustrated in Fig. 17, the end discs 45a may each be provided with a central opening 47 for receiving the ends 32b of the segmental folds 32a, said ends 32b being preferably pressed into the interior of the package X through the openings 47 by any suitable blunt ended instrument.

In the form of the invention shown in Fig. 15, in addition to the seal 31 the package may be provided with sealing bands 48, 48 composed of gummed strips and disposed adjacent the opposite ends of the package, as shown in said figure.

In that form of the invention shown in Fig. 18, the seal 31 may be eliminated and the data-containing label 30 may be of a gummed type and instead of being disposed inside the package, between the transparent sheet 22 and the stocking roll x, as indicated in Fig. 10, said label may be of the gummed type and disposed around the outside of the transparent sheet 22, as indicated at 30a in Fig. 18.

In some instances where the end discs are provided the stiffening sheet or element 3 may be eliminated, the discs 45 or 45a in such instance maintaining the cylindrical form of the package by the transparent sheet 22 being drawn tautly around the peripheries of the said discs.

I claim:

1. An article of commerce comprising a single pair of stockings rolled firmly with the open end portion of one of the stockings forming the outer layer of the roll and retained in a cylindrical package form with successive layers of the roll held against relative movement therebetween, an outer wrapping composed at least in part of transparent material divulging the character of the stockings, means sealing the outer wrapping of the package against direct handling of the stockings, and stiffening means inserted in said open end of the one stocking and segregating one side of the stocking from the underlying layers of the roll while contained within the outer wrapping to resist collapsing of the package and to accentuate the texture of the stocking.

2. An article of commerce comprising a single pair of stockings rolled firmly with the open end portion of one of the stockings forming the outer layer of the roll and retained in a cylindrical package form with an outer wrapping composed at least in part of transparent material divulging the character of the stockings, means sealing the outer wrapping of the package against direct handling of the stockings, and stiffening means inserted in said open end of the one stocking and segregating one side of the stocking from the underlying layers of the roll while rolled in and with the stockings to resist collapsing of the package and to accentuate the texture of the stocking.

3. An article of commerce comprising a single pair of stockings rolled firmly with the open end portion of one of the stockings forming the outer layer of the roll and retained in a cylindrical package form with an outer wrapping composed at least in part of transparent material divulging the character of the stockings, means sealing the outer wrapping of the package against direct handling of the stockings, and stiffening means inserted in said open end of the one stocking and segregating one side of the stocking from the underlying layers of the roll while rolled in and with the stockings and extending from end to end of the roll to resist longitudinal collapsing of the package and to accentuate the texture of the stocking.

4. An article of commerce comprising a single pair of stockings rolled firmly with the open end portion of one of the stockings forming the outer layer of the roll and retained in a cylindrical package form with an outer wrapping composed at least in part of transparent material divulging the character of the stockings, means sealing the outer wrapping of the package against direct handling of the stockings, and stiffening means inserted in said open end of the one stocking and segregating one side of the stocking from the underlying layers of the roll while rolled in and

with the stockings and extending completely around and from end to end of the roll to resist longitudinal and transverse collapsing of the package and to accentuate the texture of the stocking.

5 5. An article of commerce comprising a single pair of stockings rolled firmly with the open end portion of one of the stockings forming the outer layer of the roll and retained in a cylindrical
10 package form with successive layers of the roll held against relative movement therebetween, an outer wrapping sheet composed at least in part of transparent material divulging the character of stockings and encircling the rolled stockings
15 with portions thereof projecting beyond the op-

posite ends of the rolled stockings and crimped and twisted around said ends of the package with said crimped and twisted ends sealed and pressed inwardly at least to planes extending transversely of and at the ends of the said stocking roll, 5 means for sealing the package intermediate its said ends to prevent removal of the outer wrapping sheet, and stiffening means inserted in said open end of the one stocking and segregating one side of the stocking from the underlying lay- 10 ers of the roll while contained within the outer wrapping to resist collapsing of the package and to accentuate the texture of the stocking.

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