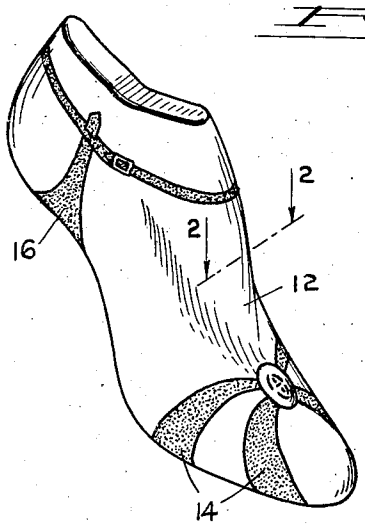
June 14, 1938. J. R. SUTTON 2,120,445

DISPLAY DEVICE

Filed March 26, 1936

Fig. 1.



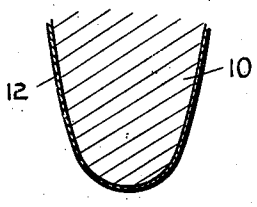


Fig. 2.

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DISPLAY DEVICE

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3 Claims. (Cl. 35—57)

The present invention relates to means for depicting the appearance of certain articles, especially shoes.

It is well known that styles in ladies' shoes vary considerably and change rapidly. A great deal of designing is therefore required. In designing ladies' shoes, however, it is difficult to visualize the appearance of a shoe of a particular design without manufacturing the shoe of such design. For example, designs when illustrated by means of sketches or drawings are frequently considered satisfactory, but when embodied in the shoes prove disappointing. For this reason numerous shoes must be discarded, after considerable time, effort and money are expended in creating the designs and manufacturing the shoes made in accordance therewith. The main object of the present invention therefore is to obviate these disadvantages and for that purpose to provide a means for closely simulating the appearance of shoe designs in as close relation as possible to the appearance of the shoes, without first actually constructing shoes of such designs.

A further object of the invention is to provide a novel shoe form upon which the design of the shoe may be delineated so that the designer and the manufacturer as well may readily observe the appearance of the shoe prior to the manufacture thereof, thus facilitating the creation of the designs and eliminating the time and expense heretofore involved in producing the shoes in accordance with the intended designs.

Another object of the invention is to provide a novel display form for depicting the appearance of shoes for sale purposes thereby eliminating the necessity for providing numerous shoes for such purposes and thus saving the cost thereof.

A yet further object of the invention is generally to improve the art of depicting articles of wearing apparel, especially shoes.

In accordance with the present invention, a shoe form which may be a last utilized in the manufacture of shoes, a display form such as a pull-over utilized in the display of shoes, and similar forms with which the art is acquainted, is provided with a removable coating of suitable material, preferably latex, which is sprayed over the shoe form to coat the same. Then the design for the shoe upper is depicted on the coating, preferably by drawing or painting the same by pen, crayon or brush with any suitable material such as paint, water color, India ink, or charcoal. Latex is preferred as the coating material since it can be readily applied to the shoe form by spraying the latex in liquid form, and more especially because the latex coating can be readily removed from the shoe form by peeling said coating therefrom. However, other suitable coating substances which may be readily removed from the form without substantially marring the appearance thereof may be used.

The invention will now be explained in further detail with reference to the accompanying drawing in which

Fig. 1 is a perspective view of the display form embodying the present invention;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

Referring to the drawing in detail there is shown a shoe form 10 which may be a last or any other form, as for example a form well known in the art as a "pull-over" having applied thereto a coating 12 of latex. Said coating is thin, being merely thick enough to cover the form and possess sufficient body to permit its ready removal by peeling. As here shown, the shoe upper is of the open shank type comprising a plurality of straps in the forward or vamp portion 14 of the upper and several straps in the quarter or counter portion 16 of said shoe form. The design of the upper may be applied to the latex coating 14 by drawing or painting the same by pen, crayon, or brush, and paint, water color, India ink, charcoal, or other suitable material may be used.

When, as is preferred, liquid latex is utilized for providing the coating 12, the following composition may be used:

	Kilograms
Liquid latex (60% D. R. C.)	309.520
Casein	3.250
Kaolin	16.100
Sulphur	1.625
Zinc oxide	1.625
Thymol	0.050
Ammonium hydroxide, 26° Baumé	0.250
Water	35.500

The liquid latex is preferably a 60% dry rubber content latex as prepared on the plantations in the Far East. A suitable quantity of this latex is mixed thoroughly in a colloid mill with a colloid protector such as casein, a filler, preferably a clay such as kaolin, a vulcanizing agent such as sulphur and zinc oxide, a putrefaction preventative such as thymol, an alkali, such as ammonium hydroxide, and water. This forms a master mix which is subsequently added to a quantity of liquid latex preferably of the same kind as that used in forming the master mix. The final composition is thus produced. Instead of latex, a water dispersion of a reclaimed or raw rubber can be used in the same proportion as the latex, and the other ingredients can be replaced by the substances hereinafter indicated used in the same proportions as said other ingredients.

The casein is employed as a colloid protector to prevent coagulation of the latex. In lieu of casein, karaya gum, gum arabic, gum tragacanth, glue, sea moss, soap, or sodium silicate may be employed. The quantity of casein may vary but,

for good results should be about 3% by weight of the master mix, but as the casein has a tendency to weaken the film formed from this product, the quantity used should preferably not substantially exceed said proportion of 3%. The sulphur and zinc oxide, used together, tend to cause vulcanization of the film and thereby materially strengthen the latter and prolong its life. In lieu of sulphur, selenium may be used, and instead of zinc oxide, there may be utilized zinc stearate or any other zinc salt of a fatty acid, magnesium oxide or calcium oxide. The quantity of sulphur may vary from zero to a maximum of 12% by weight, and the quantity of zinc oxide may vary from zero to a maximum of 20% by weight. When used in the composition, these vulcanization ingredients are preferably employed in equal amounts. The thymol is employed for the purpose of preventing putrefaction of the latex which would otherwise occur due to the presence of proteins in the latex. Sodium benzoate, phenol or any similar organic preservative may be used instead of thymol. The quantity of thymol may vary from 0.10% to 1.0% by weight. The ammonium hydroxide is used in order to preserve the alkalinity of the composition and should be used in an amount sufficient to produce in the final product a hydrogen ion potential or pH not less than seven. Any alkali such as sodium hydroxide, potassium hydroxide or any alkali salt such as borax may be used instead of ammonium hydroxide. In lieu of kaolin, whiting, barytes, zinc, sulphide, lithopone, titanium dioxide, titanox B, titanox C, may be used. The water is employed as a diluent.

In the preferred composition of the master mix the above mentioned ingredients are mixed together according to the following example:

	Kilograms
Casein	3.250
Kaolin	16.100
Sulphur	1.625
Zinc oxide	1.625
Thymol	0.050
Ammonium hydroxide, 26° Baumé	0.250
Water	35.500
Liquid latex (60% D. R. C.)	59.520

This master mix is prepared as follows:

The ingredients are weighed carefully in the amounts indicated in the above preferred example and are placed in a colloid mill of standard type having an aperture of about three one-thousandths of one inch to produce a thoroughly wetted conglomerate mass or colloidal solution. The colloidal solution or master mix is subsequently added to 250 kg. of liquid latex (60% D. R. C.), of the same kind as that used in making the master mix, thus forming the final product of the present invention. The master mix should be added to said liquid latex slowly and carefully while slowly stirring the mixture. The master mix can be kept indefinitely without danger of coagulation of the latex. Preferably, the master mix is not incorporated with the additional latex until ready for use.

All containers, implements and utensils utilized for or in the manufacture of the present composition must be scrupulously clean and should preferably be non-metallic. If metal containers or implements are used they should not be made of any metal which is high in the electromotive series. The containers carrying the present composition therein should be well sealed against the entrance of air.

The liquid latex composition is applied to the shoe form 10 preferably by spraying the coating thereon. The thin coating thus formed is smooth and adheres to the form, but it may be readily peeled off when the display of the particular design is no longer necessary. Upon removal of this coating, another coating of latex may be applied and a different design depicted thereon. Thus, the same form may be utilized indefinitely to depict a plurality of different styles of shoe uppers for the same shape of the shoe. It will be understood, of course, that the form may vary in shape depending upon the particular shoe designs to be produced. If desired, a sole and heel (not shown) may be attached to the bottom of the form to simulate a complete shoe for display purposes.

Thus, it is seen that the display form herein disclosed is well adapted to accomplish the several objects of the present invention. It will be understood, however, that the invention is susceptible of various modifications. Therefore, I do not wish to be limited precisely to the present disclosure, except as may be required by the scope of the appended claims.

Having thus described my invention, what I claim is:

1. A form for depicting the appearance of a shoe upper, comprising a body shaped to simulate the appearance of the foot and ankle, and a removable thin coating of latex formed directly on said body and carrying on its outer surface the representation of a shoe upper in simulation of the appearance of said upper on the wearer's foot, said coating being readily peelable from the form to condition the latter for the direct application thereto of another coating of latex formed directly thereon and on which the representation of another shoe upper may be delineated.

2. A form for depicting the appearance of a shoe upper, comprising a body shaped to simulate the appearance of the foot and ankle, and a removable thin coating of latex formed directly on said body and carrying on its outer surface the representation of a shoe upper in simulation of the appearance of said upper on the wearer's foot, said representation of the shoe upper contrasting in color with the exposed surface of said latex coating, said coating being readily peelable from the form to condition the latter for the direct application thereto of another coating of latex formed directly thereon and on which the representation of another shoe upper may be delineated.

3. A form for depicting the appearance of a shoe upper, comprising a body shaped to simulate the appearance of the foot and ankle, and a removable thin coating of latex formed directly on said body and carrying on its outer surface the representation of a shoe upper in simulation of the appearance of said upper on the wearer's foot, said latex coating being of a color to simulate a stocking, and said representation of the shoe upper contrasting in color with the exposed surface of said latex coating, said coating being readily peelable from the form to condition the latter for the direct application thereto of another coating of latex formed directly thereon and on which the representation of another shoe upper may be delineated.

JOHN R. SUTTON.