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A. BURNS ET AL

2,291,183

DISPLAY FORM

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Fig.-1.

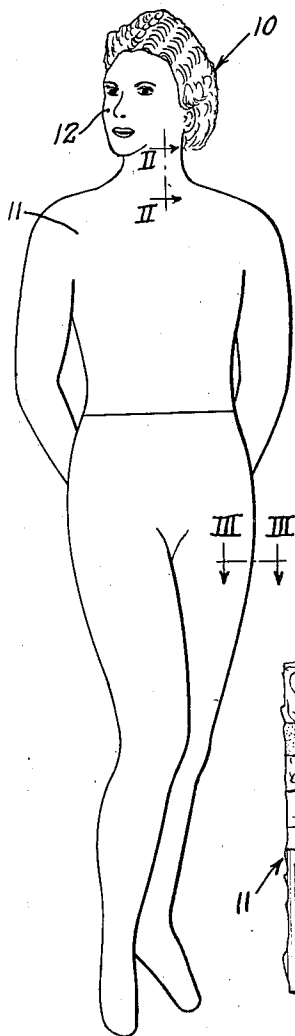


Fig.-2.

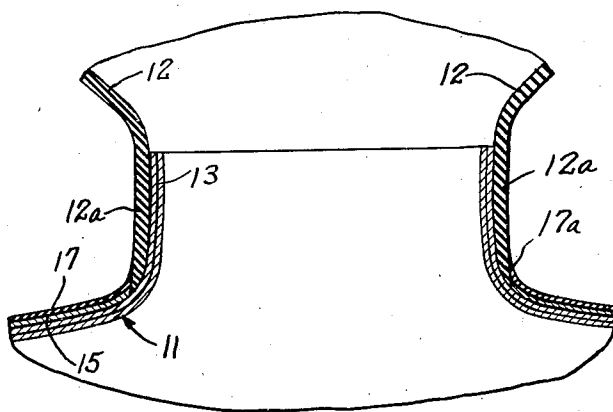


Fig.-4

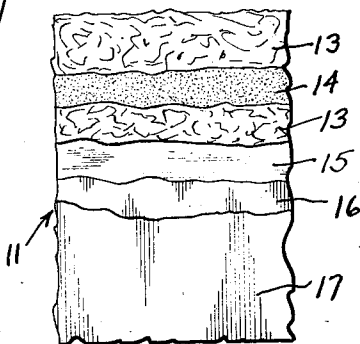
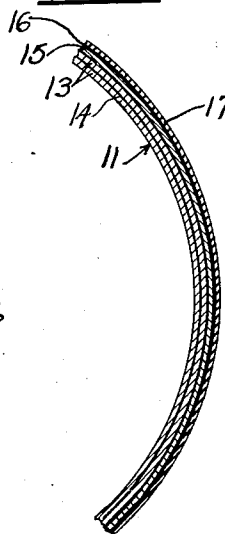


Fig.-3.



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DISPLAY FORM

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7 Claims. (Cl. 46—156)

This invention relates to display forms having paper bases and successive coatings of plaster-like filler, sealer and rubber thereon to provide a smooth, tough surface.

More specifically this invention relates to display forms such as manikins composed of rubber-covered paper base bodies and rubber heads secured to the paper base bodies in such a manner as to hide the joints between the heads and bodies.

Display forms such as manikins, advertising devices, parts of manikin bodies, animals and animate objects in general should be strong, yet sufficiently light in weight so as to be easily handled. Molded rubber display forms have been proposed but the same are expensive and heavy.

According to the present invention there are now provided rubber-covered display forms which are inexpensive, strong, and light in weight. These forms are built up from pasted-together plies of paper such as papier-mâché and successive coatings of filler, sealer and rubber. The paper is applied ply by ply in a wet state around the inside of the mold with the successive plies being pasted together until a sufficiently thick form lines the mold. The resulting paper base form is removed from the mold, dried, and treated, according to this invention, by coating the same with a plaster-like filler material such as "Muresco" which is a mixture of whiting and soluble glue. The "Muresco" filler is mixed with warm water and applied as a coating to the molded paper base. Upon drying the coating sets into plaster-like form. A sealer coating of lacquer such as a cellulose acetate lacquer containing a drier such as aluminum stearate and containing surfacing materials such as silica, talc, and whiting is then applied over the "Muresco" coating. Upon drying of the sealer the same is covered with rubber either by spray coating or dipping.

A feature of the invention includes the mounting of a hollow rubber head on a paper manikin body so that any line of demarcation between the head and body is completely obliterated.

It is, then, an object of the invention to provide light-weight rubber-covered paper base display forms having filler material between the paper base and the rubber coating.

A further object of the invention is to provide rubber-covered papier-mâché display forms with plaster-like filler between the paper and the rubber covering for hiding all unevenness in the surface of the paper base.

A further object of the invention is to provide display figures with paper bodies and rubber

heads and to cover the paper bodies with rubber so that the entire form has a one-piece appearance.

A still further object of the invention is to protect brittle coating material on flexible bases with a rubber film capable of holding the brittle material in place even though the base is flexed.

A further object of this invention is to provide a molded paper base manikin with a natural skin-like covering and to utilize the covering to hold a somewhat brittle plaster-like filler in position on the base.

Other and further objects of the invention will be apparent to those skilled in the art from the following detailed description of the annexed sheet of drawing which, by way of preferred example, illustrates one embodiment of the invention.

On the drawing:

Figure 1 is a front elevational view of a manikin according to this invention.

Figure 2 is an enlarged fragmentary cross-sectional view taken along the line II—II of Figure 1 and showing the joint between the manikin head and manikin body.

Figure 3 is an enlarged fragmentary horizontal cross-sectional view taken along the line III—III of Figure 1.

Figure 4 is a fragmentary plan view of a portion of a manikin body with the layers thereof successively broken away to show the underlying layers.

As shown on the drawing:

In Figure 1 the reference numeral 10 designates generally a display manikin having a paper base body 11 and a rubber head and face 12.

As shown in Figures 2 to 4, the body 11 is built up of a plurality of layers of paper 13 which are secured together by means of glue or paste 14 between each layer. While only several layers of paper are shown it will be understood that a sufficient number of paper sheets are used to build up a body of appreciable thickness and strength. The paper body is formed in upper and lower body parts by lining molds of the desired shape with wet paper sheets. The sheets are successively pasted in place in the molds by binder coatings such as 14. When a sufficient number of sheets have been applied to form a body of desired thickness and strength the resulting paper base body is then stripped from the mold and dried.

The paper base body is then sanded or otherwise treated with abrasives to smooth out irregularities in the outer surface thereof.

The hollow rubber head 12 is preferably applied when the paper is still wet and the successive layers of paper are pasted inside of the neck portion 12a of the head as they are being built up in the mold. The paper body thus extends into the neck portion 12a and is secured thereto. Alternatively, of course, the body could be molded with a neck portion for receiving the head portion 12a and the head could be slipped in position after the body is removed from the mold and united to the body by means of glue.

At this stage, therefore, the manikin has a molded rubber head mounted in position on a paper body. The body is preferably formed of papier-mâché.

A relatively thick coating 15 of "Muresco" is next applied to all exposed portions of the papier-mâché body. The "Muresco" used is a mixture of whiting and soluble glue which is admixed with hot or cold water to a plaster-like consistency. The material is coated over the body to form as smooth a surface as possible thereon. After the coating dries the body has a plaster-like appearance.

As shown in Figure 2, the "Muresco" coating is feathered into the neck portion 12a so as to obscure any line of demarcation between the head and body.

In place of "Muresco" other suitable plastic filler material such as plaster of Paris, or any other filler capable of setting or drying to present a hard surface that can be smooth finished is operable.

The "Muresco" coating may next be buffed to smooth out any irregularities therein. A lacquer or glue size sealer coating 16 is then applied over the filler coating to close the pores of the filler. The lacquer sealer can be any suitable nitrocellulose or cellulose acetate lacquer in a volatile solvent. A cellulose acetate lacquer containing a drier such as aluminum stearate and surfacing filler material such as silica, talc, whiting and the like is preferred. Any seal coating is operable provided that it sufficiently closes up or seals the pores of the filler coat to prevent penetration of the moisture from the rubber compound into the filler. Such penetration may soften the filler and the rubber coating, on drying or vulcanizing, then has a tendency to pull away from the form, causing cracks and breaks therein. Further, uneven rubber coatings will result.

Upon drying of the sealer coat 16 the body is next coated with rubber compound. Self-vulcanizing latex compound can be used and can be applied by spraying or dipping. Alternatively

the rubber coating can be vulcanized on the body by heat treatment.

As shown in Figure 2, the rubber covering 17 is feathered into the neck portion 12a of the head 12 as at 17a so as to completely hide the joint between the head and body.

The resulting manikin body is thus composed of a papier-mâché base built up of pasted-together plies or sheets of papier-mâché and having successive coatings of a plaster-like filler, a sealer and rubber thereon. While latex rubber compound is preferred for the exterior coating, rubber substitutes and synthetic rubber can, of course, be used. The term "rubber" as used herein will include such materials.

The finished manikin has a life-like appearance and if desired the rubber covering can be tinted flesh color. The rubber fully protects the somewhat brittle plaster filler and will not permit the filler to chip off.

While the illustrated figure is a manikin it will, of course, be understood that the invention is not limited to any particular figure but broadly relates to display forms in general.

We claim as our invention:

1. A display form comprising a rubber covered paper base having a set plastic filler material between the rubber covering and the paper thereof.
2. A display form having a bonded multi-layer papier-mâché base, an exterior rubber covering and a hardened plastic filler between the rubber covering and paper base.
3. A display form comprising a paper base, an exterior rubber covering thereon and a filler including whiting and glue between the paper base and the rubber covering.
4. A display form comprising a fibrous sheet base and successive coatings of set plastic filler, sealer and rubber thereon.
5. A molded multi-ply papier-mâché form having a relatively brittle set plastic filler covered with a flexible rubber coating thereon.
6. A figure of an animate object including a rubber head and a paper base body, said paper base body extending into said head to terminate intermediate the ends thereof and being fixedly secured therewith, a hardened plastic filler coating on said paper body, and a rubber film covering said hardened plastic filler and feathered onto said rubber head to hide any line of demarcation between the head and body.
7. A display form comprising a plaster composition figure and a rubber coating thereon.

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