This invention relates generally to roller type paint applying devices, and is especially concerned with a novel and advantageous roller cover for such devices, and a method of making the same.

As is well known, considerable interior painting is presently accomplished by the use of paint applying rollers rather than by brushes, which has been found advantageous for many reasons. The most desirable type of roller covering or exterior is that of a highly absorbent, sponge-like material adapted to retain a considerable quantity of paint and readily dispense the same upon rolling on a surface to be painted. For this purpose, polyester plastics of a foam-like character have been found desirable in use. However, it was heretofore considered necessary to cut such roller covering material from a solid block for assembly with a supporting tube, as the foam material could not be applied to the tube surface by existing apparatus. This, of course, resulted in excessive waste, and a resultant price which was too high for mass consumer acceptance. Hence, it was necessary to fabricate roller covers of less expensive, but less satisfactory materials.

Accordingly, it is one object of the present invention to provide a novel construction of paint roller cover and method of manufacturing the same, which is adapted to employ highly absorbent material for a paint roller of the foam or sponge type for most satisfactory paint application, and which is adapted to be manufactured for sale at a considerably lower price than was heretofore possible.

It is a further object of the present invention to provide a paint roller cover of the type described which is extremely simple in construction, durable and long lasting in use, and which is capable of economical mass production for sale at a price consistent with economically discarding a roller cover after a single use.

It is still another object of the present invention to provide a unique method of manufacturing covers for paint rollers which is simple and economical, and well suited for accomplishment by existing apparatus.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

In the drawings:

FIGURE 1 is a perspective view illustrating an early stage in manufacture of a paint roller cover according to the present invention;

FIGURE 2 illustrates a later stage in the instant method;

FIGURE 3 is a longitudinal view, partly in section, showing the novel construction of a finished paint roller cover of the instant invention; and

FIGURE 4 is a plan view showing a roller type paint applying device employing the roller cover of the present invention.

Referring now more particularly to the drawing, and specifically to FIGURE 1 thereof, there is illustrated therein a lamination generally designated 10, including a backing sheet or lamina 11 of substantially non-elastic material, such as paper or other suitable, flexible non-elastic sheeting. In practice, the paper treated to resist the ingredients of paints has been found advantageous. The lamination 10 further includes a lamina 12 of the desired sponge-type material, such as plastic foam of the polyurethane class. The sponge-like or foam-type lamina 12, which is usually highly elastic and absorbent, is secured in facing engagement with the backing layer or lamina 11 of paper, as by adhesive 13. Thus, the lamination 10, as illustrated, comprises a layer of the paint applying medium, ordinarily highly absorbent and elastic, and a backing layer having relatively little or negligible elasticity. By this securement of lamina, elasticity, and hence elongation, of the foam layer 12 is limited by the backing layer 11. In practice, the backing layer and foam layer 12 are formed in relatively long sections or strips, and secured together to form strips of lamination 10.

In FIGURE 2 it is seen that the lamination 10, in the strip form, is helically coiled about a relatively stiff inner member or tube 15, which may be formed of cardboard, or other suitable material. More specifically, the laminated strip 10 is arranged with its backing sheet 11 in facing engagement with the external surface of the tube 15, being secured to the latter as by adhesive 16, and the strip is helically coiled about the exterior of the tube with the side edges of adjacent strip convolutions in edge to edge contiguous relation.

As the laminar strip 10 is of limited elastic elongation or stretchability, the helical coiling of the strip about the tube 15, and its adhesive securement to the latter, may be accurately and rapidly accomplished by existing automatic tube making machinery.

After the laminar strip 10 is helically applied to the exterior of the tube 15, the resulting structure may be transversely severed, as at the dot-and-dash lines of FIGURE 2, to provide the finished roller cover 17 of FIGURE 3.

In FIGURE 4 is illustrated a roller type paint applying device including a handle 20 having a stem 21 extending therefrom and provided on its distal end with a rotatable roller or roller core 22. The tube 15 is of an internal diameter so as to engage about the roller or roller core 22 for rotation therewith. A retainer or end cap 23 may be provided on the free end of the roller core 22 to removably retain the roller cover 17 on the core. With the roller cover on the core, paint may be applied in the conventional manner; and, the roller cover may be removed from the core, when desired, and discarded or cleaned.

From the foregoing, it is seen that the present invention provides a paint applying roller cover and method of making the same which fully accomplish their intended objects, and are well adapted to meet practical conditions of manufacture and use.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claims.

What is claimed is:

1. A cover for a paint applying roller device, said cover comprising a stiff tube removably engageable on
said device, a layer of polyurethane plastic foam on the exterior of said tube, and a layer of flexible substantially non-stretchable kraft paper treated to resist the ingredients of paint interposed between and adhesively secured to said tube and sponge-like material.

2. The structure of claim 1 wherein said layers are comprised of elongated strip material helically coiled externally about said tube.

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