METHOD OF MAKING A LAMP SHADE

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Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

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This invention relates to methods for covering frames and more particularly lamp shade frames.

Objects of the invention are to provide improved economical methods of making lamp shade covers and covering lamp shade frames with various materials, and for covering such frames with bendable material which is not likely to be broken, and with material which heretofore has been likely to be broken during the process of covering lamp shade frames with it, but which with my method will not be broken.

Other objects of the invention are to provide an improved method of making lamp shade covers of any shape such as square, hexagon, octagon, bell dome or pagoda shape or the like of bendable or flexible materials and with panels of bendable materials which have heretofore broken when covering lamp shades with them.

Additional objects of the invention are to effect simplicity and efficiency in such methods and to provide an extremely simple method of covering lamp shades which produces a very artistic, attractive, desirable and rugged lamp shade and which method is easy, economical and reliable in operation, and does not require expensive installation for the manufacture of the shades.

Still other objects of the invention will appear as the description proceeds; and while herein details of the invention are described in the specification and some of the claims, the invention as described in the broader claims is not limited to these, and many and various changes may be made without departing from the scope of the invention as claimed in the broader claims.

Very briefly stated, the inventive features for the accomplishment of these and other objects are shown herein in connection with a method of covering a lamp shade frame comprising upper and lower rings, and ribs secured to the rings. Panels shaped to conform to the space between the adjacent ribs are outwardly creased along the side margins of the panels and placed with a crease of one side margin of each panel registered with a crease of a margin of another panel, with the inner faces of the panels disposed toward each other. In this position, the registered margins are enclosed with strips of binding material or self binding and stitched together with stitches passing through the creases and margins of the strips. This operation is continued until the cover is formed. The cover is then fitted on the frame with the creases adjacent to the respective ribs after which the upper and lower margins of the panels are secured to the rings.

In the accompanying drawing showing, by way of example, two of many possible embodiments of the invention,

Fig. 1 is a perspective view, parts broken away and parts in section showing my improved lamp shade;
Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 1;
Fig. 3 is a face view showing one of the panels before creasing;
Fig. 4 is a face view showing the panel creased;
Fig. 5 is a bottom edge view of the panel of Fig. 4;
Fig. 6 is a perspective view showing two panels with registered edges and binding strip stitched thereon;
Fig. 7 is a sectional view on the line 7—7 of Fig. 6;
Fig. 8 shows a section on the line 8—8 of Fig. 1; and
Fig. 9 is a vertical sectional view showing a modification in the manner of securing the upper margin of the panels to the upper ring.

My improved method facilitates and renders more economical the placing of panels lambs wire covers of paper, cloth or other material on lamp shade wire frames of almost any shape and here shown comprising upper and lower rings 12, 13 or other members connected by upwardly converging spaced ribs 14 secured to said rings. My method is particularly superior to other methods for covering wire lamp shade frames of many shapes and particularly the type that has a small upper wire frame ring 12 and a large lower wire frame ring 13 comprising intermediate downwardly curved portions 15 equal in number to the panels of the shade and joining each other in upwardly curved angles 16. The ribs 14 are welded or otherwise secured at their upper ends to the upper ring 12 and have their lower ends secured to the lower ring 13 at said angles 16 and have outwardly curved lower portions 17 and inwardly curved upper portions 18 disposed in planes radial to the shade.

Frames of this type have been difficult to cover economically heretofore, especially with stiff breakable material. By my method later to be described I prepare and efficiently place upon the frame, a cover comprising panels 20 (Fig. 3) of any suitable material, stiff or otherwise, such as "Facile Satin Parchment Paper," parchment paper, fiber glass, mica, vellum, plastics, cellulose products, any woven materials, laminated fabrics, buckram, raffia and the like and my method is particularly suitable for covering such frames with panels 20 of stiff bendable breakable material, such as "Facile Fabric Parchment Paper" which is paper-like material covered on the outer face with a parallel silk-like texture and with the sides thereto to simulate satin cloth which have not heretofore been successfully applied to frames of the above type. The panels 20 have their upper and lower edges 21, 22 conformably adjacent to said upper and lower rings 12, 13 and have outwardly curved lower portions 23 and inwardly curved upper portions 24 respectively adjacent to the outwardly and inwardly curved portions 17, 18 of the ribs. The panels have outwardly creased margins 25 (Fig. 4) stitched together by stitches 26 (Fig. 7) and forming seams 27 disposed adjacent to the outer face of the ribs and having outwardly projecting edges 28 (Fig. 5).

The upper and lower parts 23, 24 and the intermediate parts of the panel are of a width to hold said seams tightly against the ribs; and narrow strips 30 of binding material enclosing said seams 27 and hiding said edges 28 have their margins stitched to said seams 27 by the same lines of stitches 26 that secure the seams.

Upper and lower edge bindings 32, 33 disposed along the upper and lower rings respectively have their intramarginal parts covering the rings and their margins cemented or otherwise secured to the inner and outer faces of the edges 21, 22 of the panels, the outer margins of the binding covering the ends of said strips 30.

The fiber covered material described breaks easily when bent outwardly, but with my method now to be described, for some reason not fully understood, the material does not break.

In my improved method I cut, from the stiff bendable or other material, panels 20 equal in number to the ribs 14 with side edges 28 as long as the ribs and with the upper and lower end edges 21, 22 respectively shaped to
3. conform to the part of the rings 12, 13 between ribs, and with intermediate portions of the panel substantially equal to the distance between corresponding portions of the ribs. Then by means of a creasing roller or otherwise 1 outwardly crease the side margins 25 of the panels to form narrow creases 31 as shown in Fig. 7, each having a deeply depressed outer face as shown by the curved portion of the upper line of Fig. 5 at the crease and a distinctly raised inner face as shown by the curved portion of the lower line of Fig. 5 at the crease. Then I register the crease 31 of one side margin of a panel with a crease 31 of a margin of another panel, with the inner faces of the panels in contact. I then enclose the registered creases 31, margins 25, and edges 28 with strips 30 of binding material, such as tape, plastic or fabrics of all kinds or self bond by turning over material of a panel, and stitch the registered margins together with stitches 26 passing through the creases 31 and the margins of the binding strips. I continue the registering, enclosing and stitching operations until all of the panels and margins are secured together, with the inner faces inward, thus forming a frame cover 10.

The frame is then forced with proper pressure into this cover 10, with the creases 31 and seams 27 adjacent to the respective ribs. By applying the pressure the frame eases into the shade cover and forces the material to stretch to cause the cover to conform to the shape of the frame without cracking, after which the cover is pinned to the top and bottom rings by staples, split pins, or the like to hold it in position after which the upper and lower edge bindings 32, 33 are cemented or otherwise secured along the upper and lower rings respectively with the intramarginal part of the bindings covering the rings 12, 13 and their margins 34 secured to the inner and outer faces of the panels with the outer margins of the bindings covering the edges of the strips.

If desired, with some materials, instead of or in addition to the bindings 32, 33, I may fold the end of the panel 20a (Fig. 9) over the ring 12 or 13, as at 33a, and secure it by ornamental rivets 34a which may or may not be covered by the bindings 32, 33 as desired.

From the above it will be seen that by taking the multiplicity of any number of panels, sewing them together on the edges as well as binding the edge with tape, plastic or fabrics of all kinds or self bond, I form the outer part of any lamp shade when I sew the last two panels together; thus making a definite shape, such as square, hexagon, pentagon, octagon, pagoda and the like.

My next step is to force the lamp shade frame into the inner part of the formed body of the lamp shade cover and by applying pressure to the frame, the frame eases into the body of the lamp shade and forces the outside material to expand and form a perfect shape conforming to the frame and pattern, without cracking.

The body is then pinned to the top and bottom by staples or split pins or other suitable means to the frame to hold it in position. The top or bottom of the material is folded over the frame or creased over the frame or cemented to the frame or bound to the frame or attached by means of the trimming to the frame to complete the construction.

These shades can be made of "Facile Satin Parchment Paper," parchment paper, fiber glass, mica, wire mesh, plastic mesh, plastics, cellulose products, any woven materials, laminated fabrics, buckram, raffia or other suitable material.

My method is quick and produces a sturdy shade which helps prevent damage in shipping and can be produced cheaper for the market than by methods heretofore used.

With some materials and shapes it is not necessary to provide creases 31. With some materials the operation of stitching the stitches 26 effects results similar to the creases 31. The invention as in some of the claims is not limited to any creases 31 or simulations thereof.

It is not necessary that the upper ring 12 be smaller than the lower ring, and some of the claims are broad enough to cover upper rings of the same size as or larger than the lower rings. I claim as my invention:

1. A method of forming a lampshade cover and applying it to a lampshade frame comprising equally spaced rigid ribs secured to rings and having outwardly curved portions; said method comprising cutting panels of stiff, bendable, breakable material shaped to conform to the space between adjacent ribs; forming in the side margins of the panels narrow creases having deeply depressed outer faces and distinctly raised inner faces, while maintaining the rest of the panel substantially in a single plane; registering the crease of one side margin of each panel with a crease of a margin of another panel, with the raised inner faces of adjacent creases contacting each other; stitching the registered margins together with stitches passing through the creases to form seams; continuing the operations to form a cover; and forcing said frame tightly into the cover and thereby tensioning the cover with the ribs tightly against the respective seams.

2. A method of forming a lampshade cover and applying it to a lampshade frame comprising upper and lower rings and spaced ribs secured to the rings and having outwardly curved lower portions and inwardly curved upper portions, said method comprising cutting panels of stiff, bendable, breakable material shaped to conform to the space between adjacent ribs; forming in the side margins of the panels narrow creases having deeply depressed outer faces and distinctly raised inner faces to eliminate breakage of the material when subsequently applying the shade to the frame; registering the crease of one side margin of each panel with a crease of a margin of another panel, with the raised inner faces of adjacent creases contacting each other; thereafter enclosing the registered margins with strips of binding material; stitching the registered margins together with stitches passing through the creases and margins of the strips to form seams; continuing the operations to form a cover; and forcing with pressure said frame tightly into the cover and thereby tensioning the cover with the ribs tightly against the respective seams without breaking the material.

3. A combination of steps in a method of forming a lampshade cover and applying it to a lampshade frame comprising upper and lower rings and spaced ribs secured to the rings and having outwardly curved lower portions and inwardly curved upper portions, said combination of steps comprising cutting panels of stiff, bendable, breakable material shaped to conform to the space between adjacent ribs; forming in the side margins of the panels narrow creases of the type formed by creasing rollers, said creases providing deeply depressed outer faces and distinctly raised inner faces, while maintaining the rest of the panel on both sides of the crease substantially in a single plane; registering the crease of one side margin of each panel with a crease of a margin of another panel, with the raised inner faces of adjacent creases contacting each other; enclosing the registered margins with strips of binding material; stitching the registered margins together with stitches passing through the creases and margins of the strips to form seams; continuing the operations to form a cover; and forcing said frame tightly into the cover and thereby tensioning the cover with the ribs tightly against the respective seams without breaking the material; the creases eliminating breakage of said material during said forcing.

4. A method of forming a lampshade cover and applying it to a lampshade frame having spaced ribs having outwardly curved portions; said method comprising providing panels of stiff bendable material, shaped to conform to the space between adjacent ribs; forming in the side margins of the panels narrow creases of the type formed by creasing rollers, said creases providing deeply depressed outer faces narrow and deep enough to eliminate breakage of the material in both panels when subse-
quenty applying the cover under tension to the frame, and distinctly raised inner faces, while maintaining the rest of the panels on both sides of the crease in substantially the same single plane; thereafter registering the crease of one side margin of each panel with a crease of a margin of another panel, with the raised inner faces of adjacent creases contacting each other; thereafter enclosing the registered margins and creases with strips of binding material; thereafter stitching the registered margins together with stitches passing through the creases and margins of the strips to form seams; continuing the operations to form a cover; and forcing with pressure said frame tightly into and tensioning the cover with the ribs tightly against the respective seams without breaking the material.

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