Jan. 6, 1970 W. D. HERRING ET AL 3,487,513

PREFORMED CASKET PANEL LINING WITH CURVED CORNERS

Filed Feb. 3, 1967 4 Sheets-Sheet 1

Fig. 1

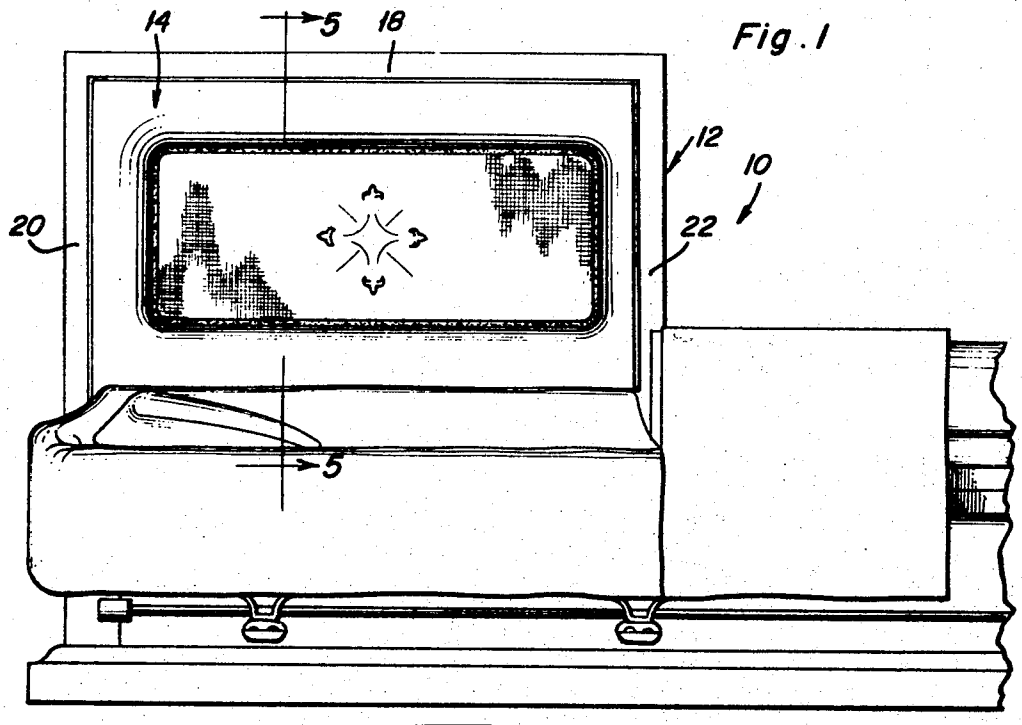
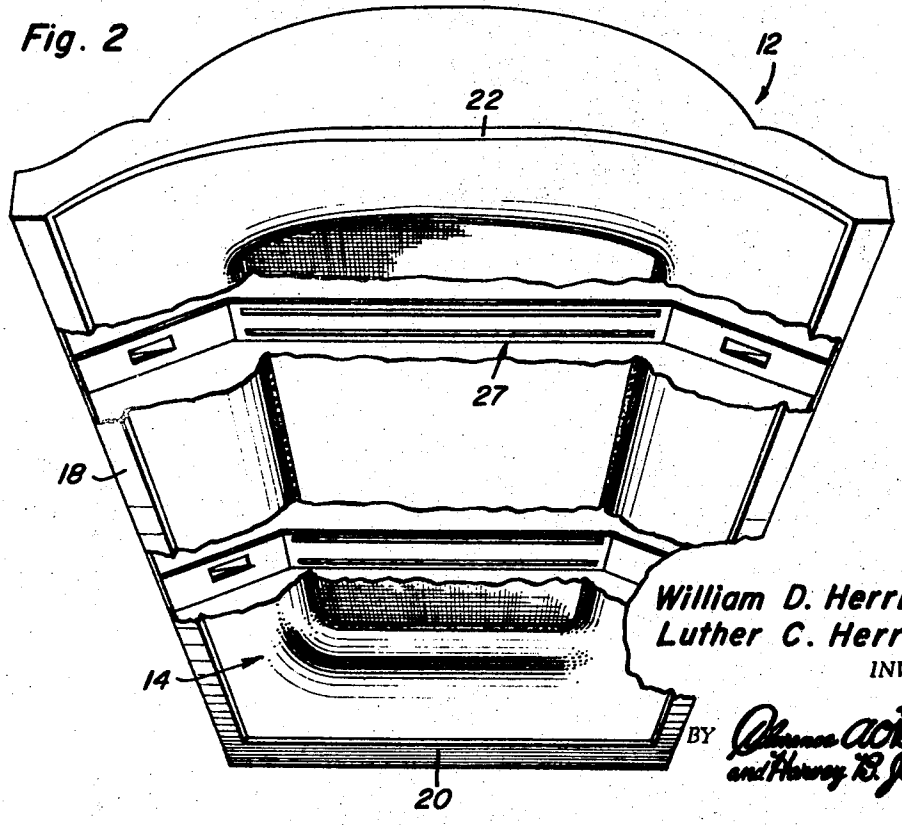


Fig. 2



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PREFORMED CASKET PANEL LINING WITH CURVED CORNERS

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Fig. 3

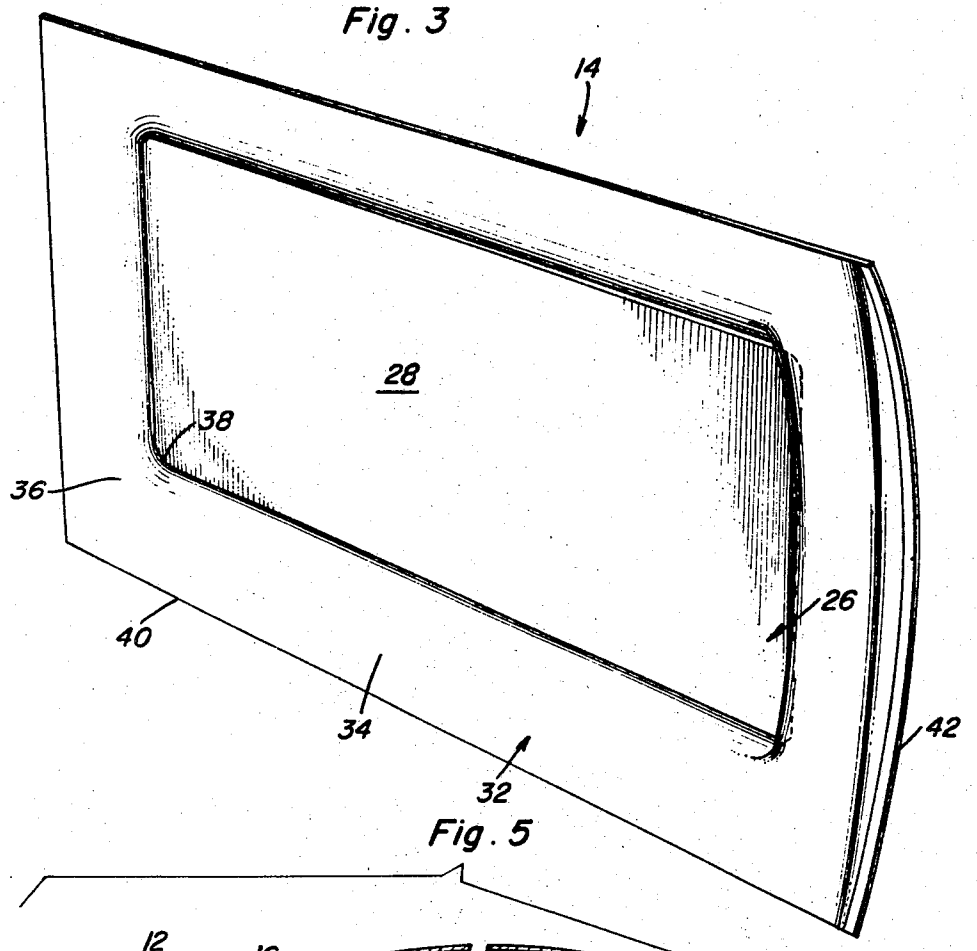
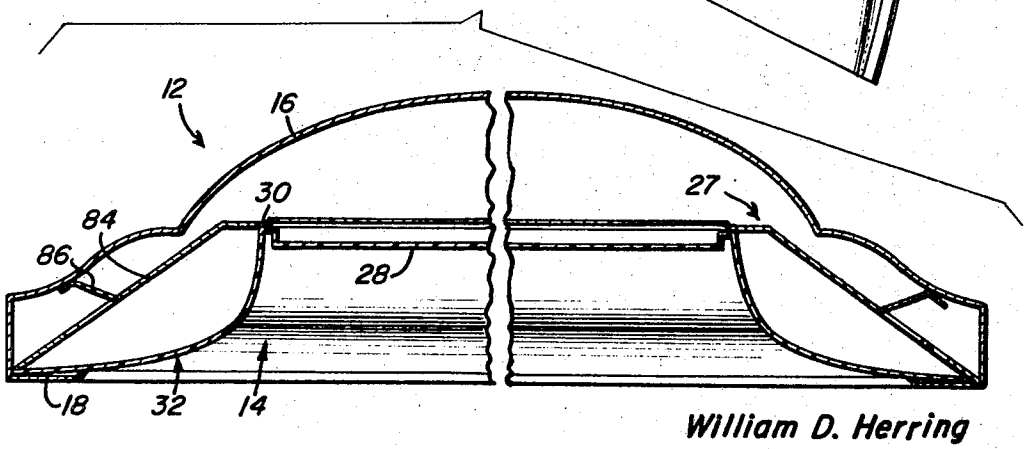


Fig. 5



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Fig. 4

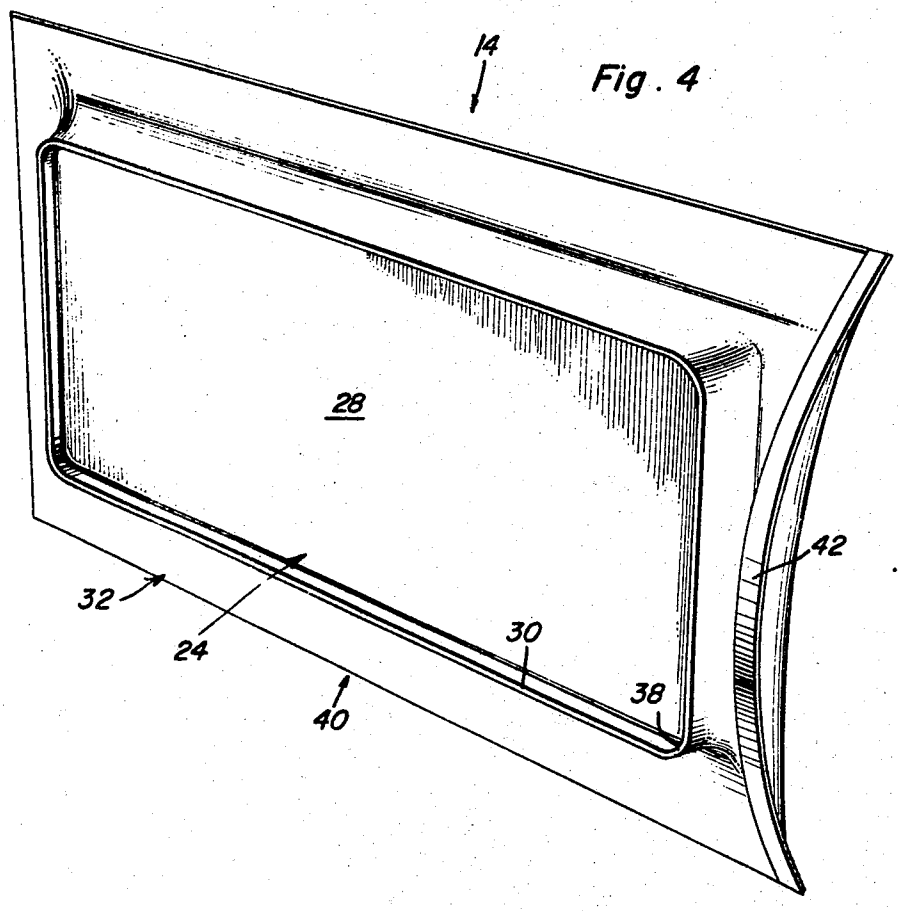
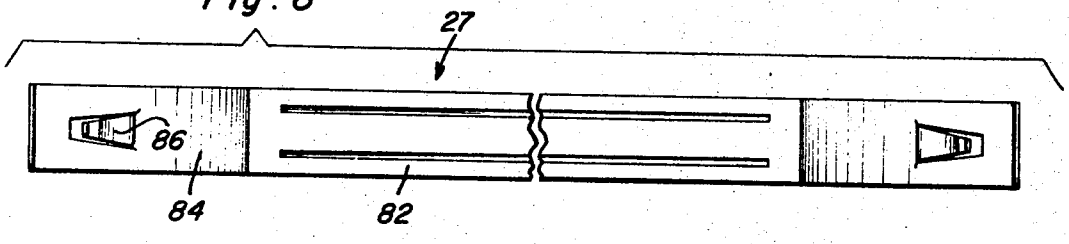


Fig. 8



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PREFORMED CASKET PANEL LINING WITH CURVED CORNERS

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Fig. 6

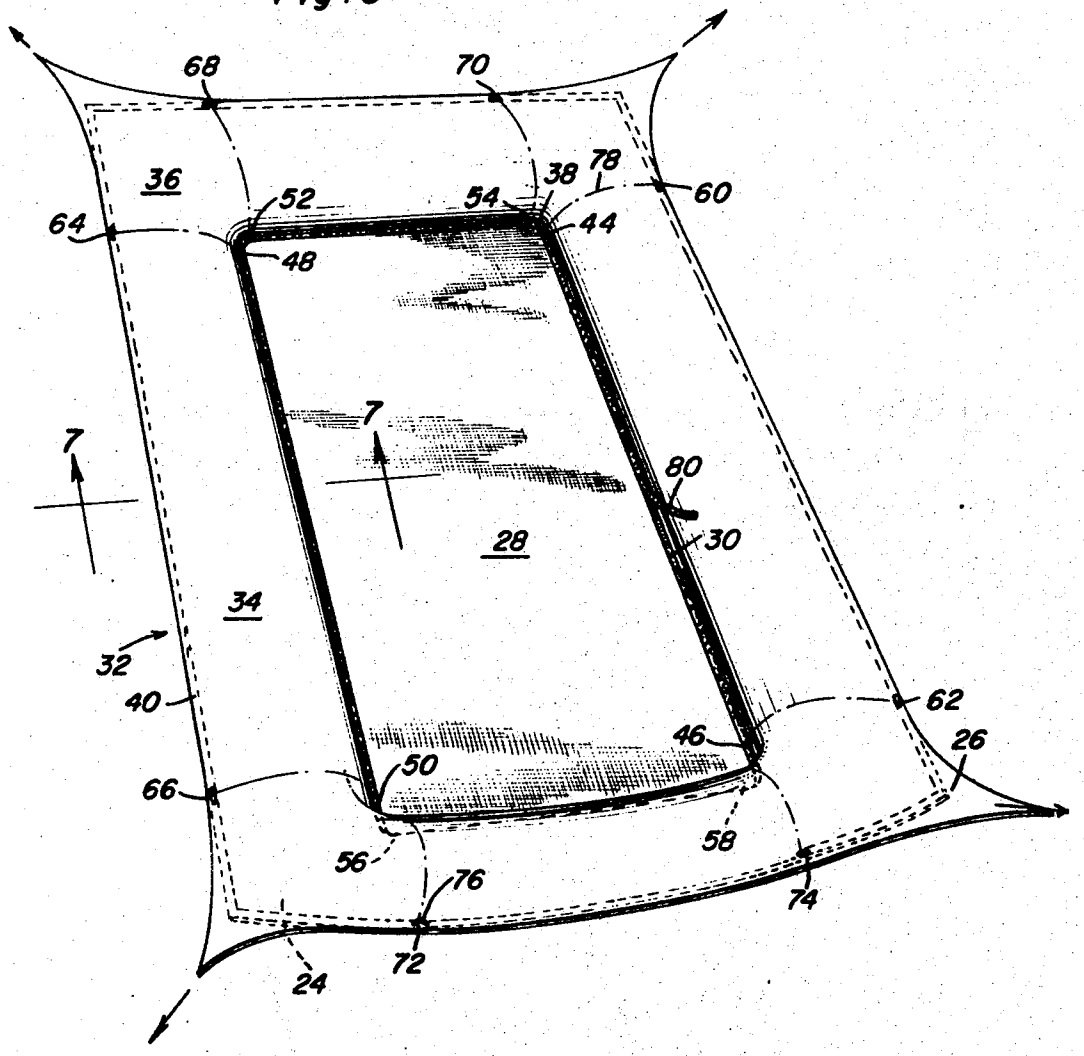
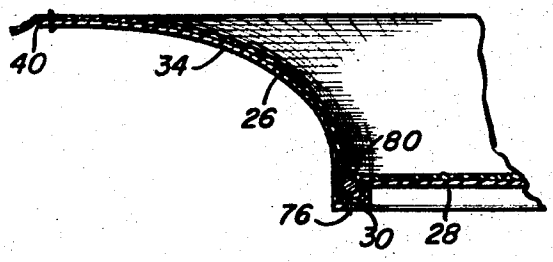


Fig. 7



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PREFORMED CASKET PANEL LINING WITH CURVED CORNERS

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U.S. Cl. 27—19 12 Claims

ABSTRACT OF THE DISCLOSURE

An interior lining for the panel lid of a burial casket made from fabric covering a single sheet of preformed plastic forming a rigid foundation surface. The foundation surface is formed with curved corners to make a decorative appearance without wrinkling of the fabric or folding thereof at corners. The assembly is snapped into and retained within the lid panel by straps wedged between the rear surface of the lining and the casket lid.

BACKGROUND OF THE INVENTION

This invention relates to preformed casket panel linings which are easily and quickly applied to the interior of the lid of a burial casket.

Decorative panel linings for casket lids according to the prior art have been made from corrugated board structures which are precut, mitered and stapled or otherwise joined together into a generally rectangular shape to form a framework over which an outer decorative upholstery is secured. Examples of such prior art lining assemblies are disclosed in Patent No. 2,664,615 to Hillenbrand, et al. and Patent No. 3,077,016 to White.

Also according to the prior art, colored decoration is obtained only by use of fabrics of different colors, in which case such fabric must be cut and applied separately often with unsightly joints. The gradual fading out of one color, shade or tone into another was therefore not possible, although this may be readily achieved in the present invention so that a pleasing transition from the intensity of one color or shade to that of another may be accomplished without interruption and without any demarcation between the colors.

In other prior art constructions, it was necessary to unhinge the casket lid from the body of the casket, install the interior and then replace the pins in the separable hinges as the lid is again installed on the casket constituting a time consuming operation. This has been a major bottle-neck in casket production and probably the major cause of slow down which would hinder other operations in any proposed mass production sequence.

SUMMARY OF THE INVENTION

The present invention relates to a casket panel interior lining assembly and its method of manufacture. The lining assembly is formed from a continuous, one-piece foundation of thermoplastic material, to the exposed surface of which woven fabric (of the conventional textiles used in caskets) is applied adhesively or by means of staples. The lining foundation being of one-piece construction is not mitered or otherwise separated into two or more parts which must be covered with separate fabric panels and reassembled. The configuration produced in the plastic resembles in its outward portions, a frame whose four corners, rather than being mitered and joined, are curved. This construction eliminates the time and labor involved in precutting, mitering, cloth covering and assembling.

Lining assemblies constructed in accordance with the present invention are also snapped into place with the greatest of ease and, being prefabricated, they thus lend

themselves to assembly line production methods. Also, the interior lining assembly can be so installed in both the head and the foot panels of a casket, with considerable savings in cost. The panels may be covered in advance, having ornaments, motifs, etc. of many kinds and stocked for later assembly. Then, when custom finished caskets go through the assembly line, the interior lining assemblies can be snapped in place with no delay in the flow of production.

A further feature of the present invention resides in the use of a relatively thin thermo-forming sheet plastic which when formed to the desired shape, is sufficiently rigid and strong so that it does not require additional reinforcement by laminating corrugations to the back side thereof or by attaching support of any kind at right angles thereto nor does the foundation require any reduction in its thickness at the peripheral edges to produce a surface in the plane with the edges of the casket panels.

Yet another feature of the present invention resides in the fitting of the lining assembly to casket panels of different sizes. Thus, the outer edges of the assembly may be easily trimmed if desired to fit inside the casket panel of smaller than usual size. This may be accomplished without disturbing the assembly or its design. Also, in the case of casket panels one of whose ends rather than being in the plane with the other end of the panel, is curved in a shape similar to the outside surface of a cross-section of the panel, the plastic may be drawn to such a shape at the appropriate end so that no further setting, mitering, forming or adjustment is required as in the case of the prior art.

Still another feature of the present invention resides in a lining assembly capable of being inserted and permanently retained within the casket lid without stapling or tacking to wood strips usually provided inside the casket lid for that purpose. All that is required are two preformed metal straps wedged inside the casket lid so as to provide a firm support at a depth below the inside edges of the metal lid.

It is therefore a primary object of the present invention to provide a casket panel interior lining assembly having a one-piece foundation which requires no assembly and fitting of precut parts, is lightweight, relatively thin, yet suitably rigid without any additional reinforcement.

An additional object of the invention is to provide a lining assembly with a frame and corresponding rectangular center portion capable of decorative treatment without unsightly corner miters or holes in the fabric.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

BRIEF DESCRIPTION OF THE DRAWING FIGURES

FIGURE 1 partially illustrates a typical burial casket with the head panel open showing the fabric-covered, preformed casket lining assembly of the present invention installed therein.

FIGURE 2 is a perspective view of the casket lid panel underside showing the lining assembly with parts broken away exposing the strap supports.

FIGURE 3 is a perspective view of a lining assembly constructed in accordance with the present invention showing the exposed side thereof.

FIGURE 4 is a perspective view of the lining assembly showing the other side thereof.

FIGURE 5 is a transverse sectional view through the casket panel lid taken substantially through a plane indicated by section line 5—5 in FIGURE 1.

FIGURE 6 is a perspective view illustrating the manner in which the lining assembly is constructed.

FIGURE 7 is an enlarged partial sectional view taken substantially through a plane indicated by section line 7—7 in FIGURE 6.

FIGURE 8 is an enlarged partial top plan view of one of the support straps.

DESCRIPTION OF PREFERRED EMBODIMENT

Referring now to the drawings in detail, FIGURE 1 illustrates a typical burial casket of the "perfection half couch" type generally denoted by reference numeral **10** having a head lid panel **12**. The head panel is shown in an open position exposing an interior lining assembly generally referred to by reference numeral **14**. The assembly **14** in accordance with the present invention is bodily inserted and retained within the casket head panel **12**. Further, the lining assembly incorporates any desired design in conformity with the external or internal appearance of the burial casket.

As more clearly seen in FIGURE 5, the casket lid panel **12** includes an outer concave shell **16** formed with inturned peripheral flanges **18** retaining the lining assembly **14** therewithin. In the illustrated embodiment, one end of the panel is provided with a flat flange portion **20** as more clearly seen in FIGURE 2 while at the other end of the panel is a curved flange **22**. In the case of a "half couch" burial casket, all four sides of the panel would be provided with flat inturned flanges and the lining assembly adapted thereto without departing from the basic principles of the present invention.

As shown in FIGURES 3 and 4, the lining assembly in one simple embodiment includes a one-piece foundation generally referred to by reference numeral **24** which is made of a thermoforming sheet of plastic, vacuum formed and drawn over or into a suitable mold assuming a condition of great rigidity and strength thus obviating the need for reinforcements of any kind other than at least two supporting straps **27** as shown in FIGURE 2. The plastic material utilized may be of the rapid setting, lightweight type drawn over into a mold of the desired pattern while in a pliable state by evacuating the air surrounding the mold and beneath the plastic material. After being formed and set into the desired shape, color may be added to the plastic by the spraying of lacquer in one or more colors on portions of the foundations or by silk screen printing or stenciling. One side of the foundation **24** is then smoothly covered with a woven translucent fabric **26** as shown in FIGURES 3 and 7, the fabric being in constant and continuous contact with a colored plastic surface so that color and color designs will show through to present a pleasing appearance. As shown in FIGURES 3, 4 and 5, the foundation **24** includes an inner planar portion **28** outlined by a groove portion **30** from which an outer frame **32** extends having a continuous curvature. The outer frame includes side portions **34** having a curvature in one cross-sectional plane perpendicular to the straight sides of the inner portion **28** outlined by the groove portion **30**, this curvature being tangent to the double or compound curvature of the transitional corner portions **36** of the outer frame bordering the rounded corners **38** of the groove portion **30**. The foregoing one-piece foundation **24** may be prefabricated in standard sizes in order to fit into casket lids and may be trimmed along the outer peripheral edge **40** in order to fit substandard size lids. Also, in the illustrated form of lining assembly **14**, one end of the foundation has secured thereto a curved bearing strip **42** adapted to underlie the curved flange **22** of the lid panel **12**.

Referring now to FIGURES 6 and 7, it will be observed that the preformed plastic foundation **24** is being covered on its exposed face with a single panel of the fabric **26** by spreading the fabric smoothly and without wrinkles over all of the surfaces of the foundation. The fabric is first stretched flat over the rectangular inner portion **28** and tacked in place at spaced locations **44, 46, 48, 50, 52, 54, 56** and **58** in the bottom of the groove portion **30** before it is secured to the groove portion between the aforesaid locations. Then, the fabric is tacked along the raised outer edge **40** at corresponding locations **60, 62, 64, 66, 68, 70, 72** and **74** before being secured to the outer edge between the latter locations. Tacking and securing of the fabric is done by means of a suitable quick-setting adhesive previously applied to the plastic foundation along the bottom of the groove portion **30** and the outer edge **40** or by means of divergent point staples **76** as shown which are driven through the fabric and the plastic against a back-up plate causing the divergent points of the staples to clinch against the backside of the plastic providing a permanent attachment.

In order to prevent the accumulation of surplus fabric at the corner portions **36** along the outer frame, the four corner portions **36** are provided with a compound curvature between the rounded corner portions **38** of the groove **30** and the outer edge **40**. The transition curvature of the corner portions **36** are tangent to the curvature of the side portions **34** of the outer frame **32** at the tangent lines **78** interconnecting the tacking locations aforementioned in order to minimize the required outward stretching of the fabric on the bias of its weave at the corner portions **36** insuring that the fabric is free of wrinkles.

The fabric **26** is first secured to the plastic foundation with the weave thereof parallel to the side portions **34** at the tacking location **44**. With only a minimum stretching of the fabric, to free it of wrinkles, it is then successively tacked to the bottom of the groove portion **30** at the other tacking locations **46–58**. Then, the fabric in a like manner is attached to the plastic foundation along the bottom of the groove portion between the tacking locations. Thus, the flat inner rectangular portion **28** of the foundation is smoothly covered with fabric. The surrounding cross-sectionally curved outer frame **32** is then covered in a similar manner with a minimum amount of fabric stretching by tacking the fabric at the tacking locations **60–74** before it is secured along the outer edge **40** between the tacking locations. At the corner portions **36** of the foundation, the fabric is pulled firmly on the bias of the weave until it conforms without wrinkles to the compound curvature before it is attached to the outer edge. This compound curvature at the corner portions reduces the difference in surface area between the fabric and the foundation surface so as to avoid any mitered appearance and wrinkling or folding of the fabric.

Once the fabric is applied to the foundation as described, any staples **76** exposed within the groove portion **30**, if used, may be concealed by a round welt cord **80** by simply cutting the welt to the proper length and laying a thin coat of suitable fabric adhesive in the groove portion to which the welt adheres. Alternatively, the welt may be stapled to the foundation from the backside by stapling pliers or by the insertion of straight pins through the groove portions and the welt itself. The flat rectangular portion **28** of the lining assembly will thus be covered with fabric and be either surrounded by an attractive welt or left plain to provide a conservative, neatly tailored effect. Tasteful decoration may also be provided by the addition of appliques attached adhesively to the fabric or by the prior application of color to the plastic. Other decorative effects may also be achieved by applying additional textile patterns or textiles of different colors over the inner portion **28** prior to the installation of the welt in the groove portion **30**. In such case the fabric may be stapled in the groove and trimmed closely against the staples or groove to the fabric surface. A large variety of

painted, flock coated plastic ornaments and ornaments of many different materials can be fastened to the inner portion **28**.

Referring now to FIGURES 2, 5 and 8, it will be observed that the two supporting straps **27** are stamped to an appropriate shape and placed within the lid panel **12** under a slight tension. Each of the straps **27** includes a central rib section **82** from which opposite divergent end portions **84** extend into contact with the edge portions of the casket lid panel. Projections **86** are struck out from the end portions **84** of the straps for contact engagement with the nearest surface portions of the metal casket lid to thereby prevent slipping of the straps further into the lid. The straps are thus wedged in place to support the plastic foundation **24**, the groove portion **30** of which rests against the central section **82** of the straps. The straps may be stamped at a low cost on standard metal presses and easily wedged between the outer edges of the casket panel by placing the straps at a slight angle from the perpendicular to the two sides of the lid and using slight pressure, drawing the strap to the said perpendicular, where it will remain without soldering or welding due to the angular design, as shown in FIGURE 5. When the straps are in place, the fabric covered plastic foundation is inserted beneath the inturned flanges **18**, **20** and **22** of the casket lid by gently folding one corner of the plastic foundation beneath the metal edge and running a flat upholsterer's knife between the plastic and the metal edge around the entire perimeter of the panel. Once so inserted, the plastic form because of its strength, shape and outside dimensions, fits snugly against the outer perimeter of the metal casket lid and is held in place in such position by the pressure of the metal straps against the backside of the plastic foundation. The groove line or line of staples securing the fabric to the outer edge **40** of the foundation will be concealed behind the flanges eliminating the need for trimming.

The lining assembly hereinbefore described may be manufactured by machinery consisting primarily of a vacuum forming machine, molds, a spray gun for the application of colored lacquer when desired, stencils, silk screen equipment, a stapler and scissors or knife. Hand labor of a highly skilled nature is virtually eliminated. Thus, substantial savings in labor over the methods described in the prior art are easily realized without any increase in cost of materials. Because of the one-piece construction of the foundation, a variety of patterns may be constructed and stockpiled indefinitely without damage or deterioration. Thus, the flow of casket production need not be held up by the tedious installation of handmade casket panel lining interiors requiring highly skilled labor.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to falling within the scope of the invention.

What is claimed as new is as follows:

1. In combination, a concave panel having an inturned peripheral flange, a plurality of elastically deformed straps wedgingly mounted within said panel, and a rigid foundation in engagement with said peripheral flange and supported by the straps in spaced relation to the panel, said foundation including a planar inner portion, a peripheral groove portion outlining said inner portion, and an outer frame extending outwardly from the groove portion into engagement with the peripheral flange of the panel, each of said straps including a central section in contact with the groove portion of the foundation, diverging end portions extending from the central section into engagement with the panel and projections extending from the end portions into engagement with the panel to prevent shifting of the strap.

2. In combination, a concave panel having an inturned peripheral flange, a plurality of elastically deformed straps wedgingly mounted within said panel, a rigid foundation made of a single sheet of material in engagement with said peripheral flange and supported by the straps in spaced relation to the panel, and a fabric smoothly covering an exposed surface of said foundation, said foundation including a planar inner portion, a peripheral groove portion outlining said inner portion, and a outer frame having a continuous curvature extending peripherally throughout and outwardly from the groove portion into engagement with the peripheral flange of the panel, each of said straps including a central section in contact with the groove portion of the foundation, diverging end portions extending from the central section into engagement with the panel and projections extending from the end portions into engagement with the panel to prevent shifting of the strap.

3. The combination of claim **2** including means for securing the fabric to the groove portion and the outer frame of the foundation, said outer frame having a peripheral edge portion concealed by the peripheral flange of the panel.

4. The combination of claim **3** including welting in the groove portion of the foundation over the fabric, concealing said securing means.

5. The combination of claim **4** wherein said single sheet of material from which the foundation is made is a thin panel of a rigid preformed plastic.

6. The combination of claim **2** wherein said single sheet of material from which foundation is made is a thin panel of a rigid preformed plastic.

7. The combination of claim **6** including means for securing the fabric to the groove portion and the outer frame of the foundation, said outer frame having a peripheral edge portion concealed by the peripehral flange of the panel.

8. In a lining assembly for panels or the like, a rigid foundation having a continuous exposed surface and a fabric smoothly covering said exposed surface, said surface of the foundation including a planar, inner portion, a peripheral groove portion outlining said inner portion, and an outer frame having a continuous curvature extending outwardly from the groove portion and peripherally thereof throughout for wrinkle-free adherence of the fabric to the foundation, said outer frame including side portions interconnected by rounded corner portions to form a closed configuration, each of said side portions having a cross-sectional curvature in one plane only, said corner portions having compound curvatures tangential to the curvatures of the adjacent side portions to which the fabric conforms without folding.

9. In a lining assembly for panels or the like, a rigid foundation having a continuous exposed surface and a fabric smoothly covering said exposed surface, said surface of the foundation including a planar, inner portion, a peripheral groove portion outlining said inner portion, and an outer frame having a continuous curvature extending outwardly from the groove portion and peripherally thereof throughout for wrinkle-free adherence of the fabric to the foundation, said inner portion and said groove portion of the foundation surface having a generally rectangular configuration with rounded corners, said outer frame having side portions formed with a cross-sectional curvature in one plane only between said rounded corners and transitional corner portions tangentially interconnecting the side portions formed with compound curvatures to which the fabric conforms without folding.

10. The combination of claim **9** including means for securing the fabric to the groove portion and the outer frame of the foundation.

11. A method of making a lining assembly consisting of a rigid supporting surface and a single panel of fabric smoothly covering said surface, comprising the steps of: forming said surface from a planar portion peripherally outlined by a groove and an outer frame having a continuous cross-sectional curvature; placing the fabric flat against the planar portion of the surface; tacking the fabric to the surface at spaced locations outwardly of the planar portion; and securing the fabric to the surface only in the groove and along the peripheral edge of the outer frame between said spaced locations at which the fabric is tacked.

12. The method of claim 11 wherein said continuous curvature of the outer frame includes single and double

curvature portions tangent to each other at said locations to which the fabric is tacked.

References Cited

UNITED STATES PATENTS

2,076,434	4/1937	McLaud et al.	27—19
2,637,137	5/1953	Flynn	27—19 X
2,718,687	9/1955	Woltering et al.	27—19
3,162,923	12/1964	Kaeser	27—19
3,344,494	10/1967	McClive	27—19

WILLIAM E. KAMM, Primary Examiner