Nov. 24, 1964 G. C. HILLENBRAND 3,157,936

SIMULATED UPHOLSTERY FOR CASKETS

Filed May 8, 1962 3 Sheets-Sheet 1

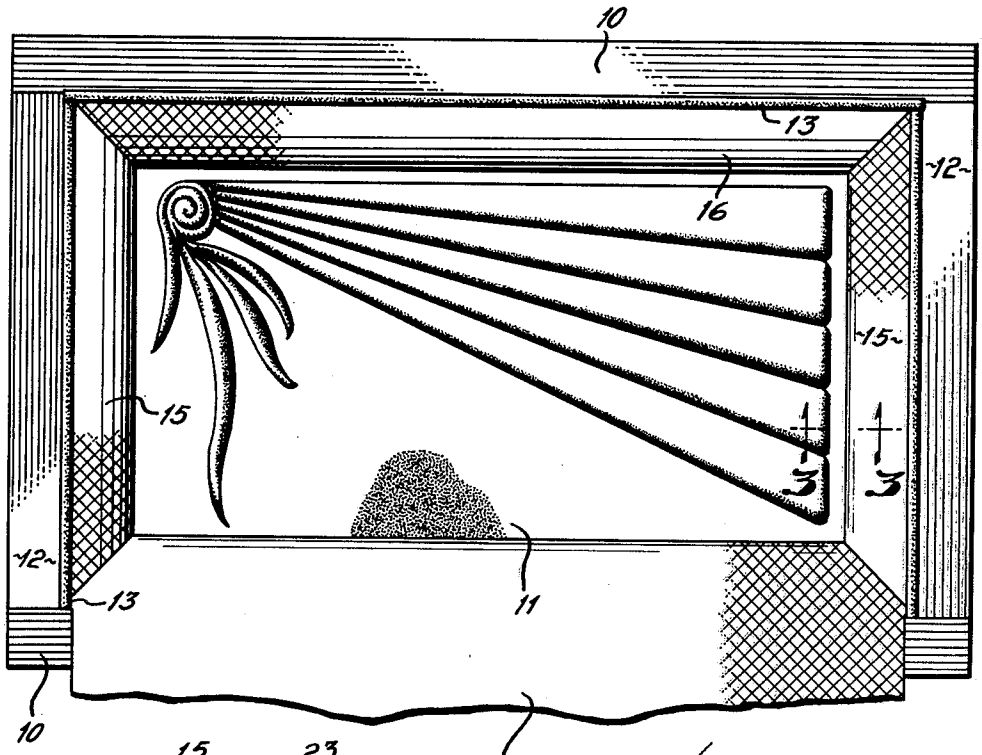


Fig. 1

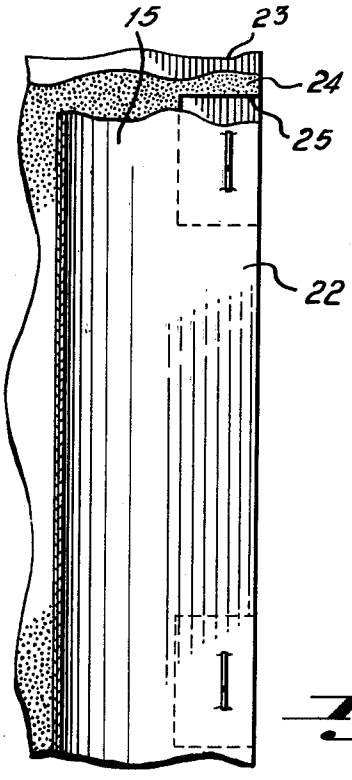


Fig. 4

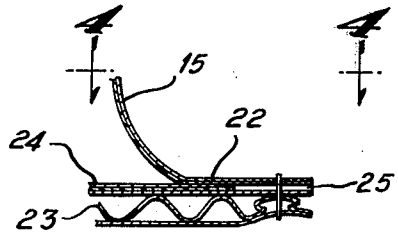


Fig. 3

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SIMULATED UPHOLSTERY FOR CASKETS

Filed May 8, 1962 3 Sheets-Sheet 2

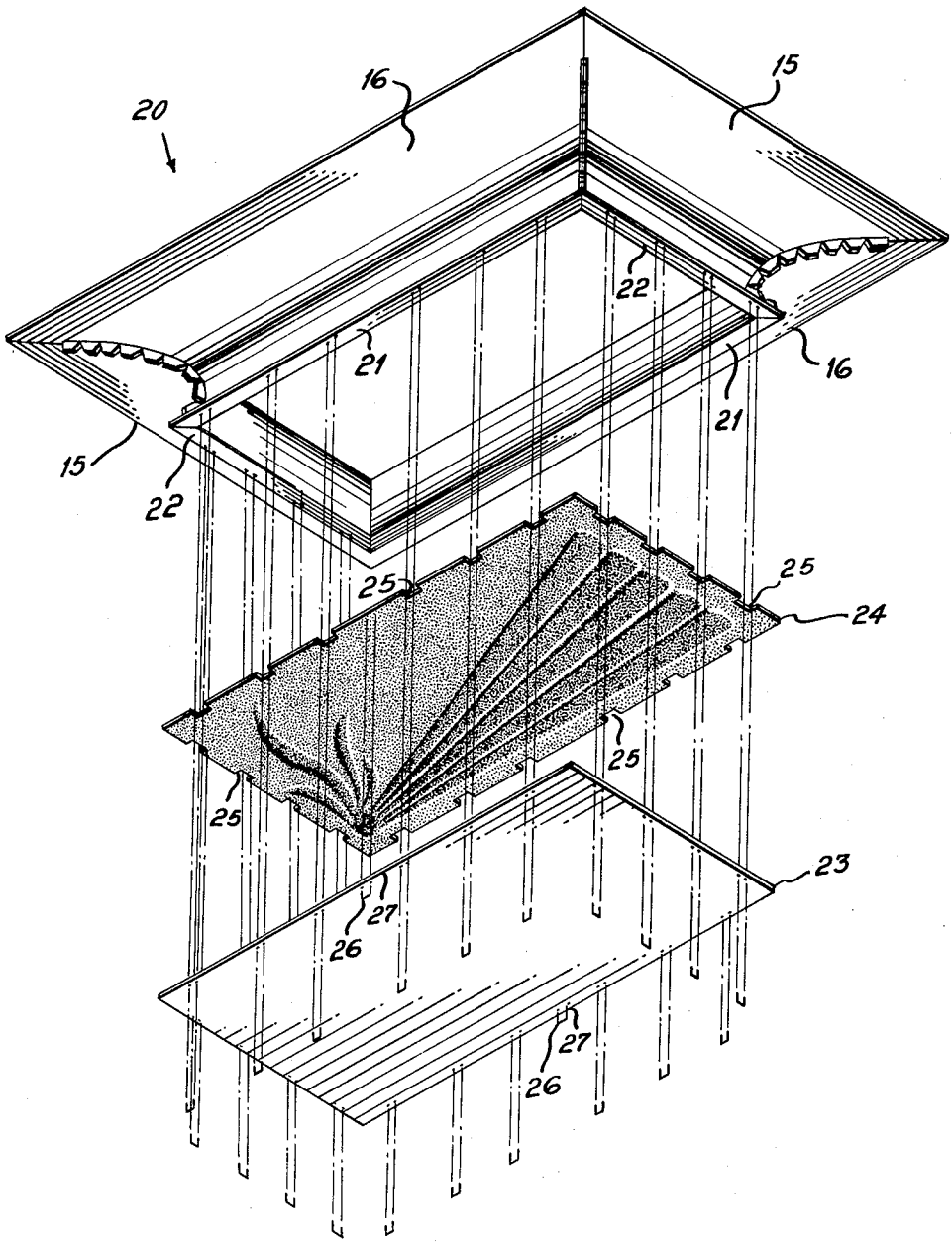


Fig. 2

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SIMULATED UPHOLSTERY FOR CASKETS

Filed May 8, 1962 3 Sheets-Sheet 3

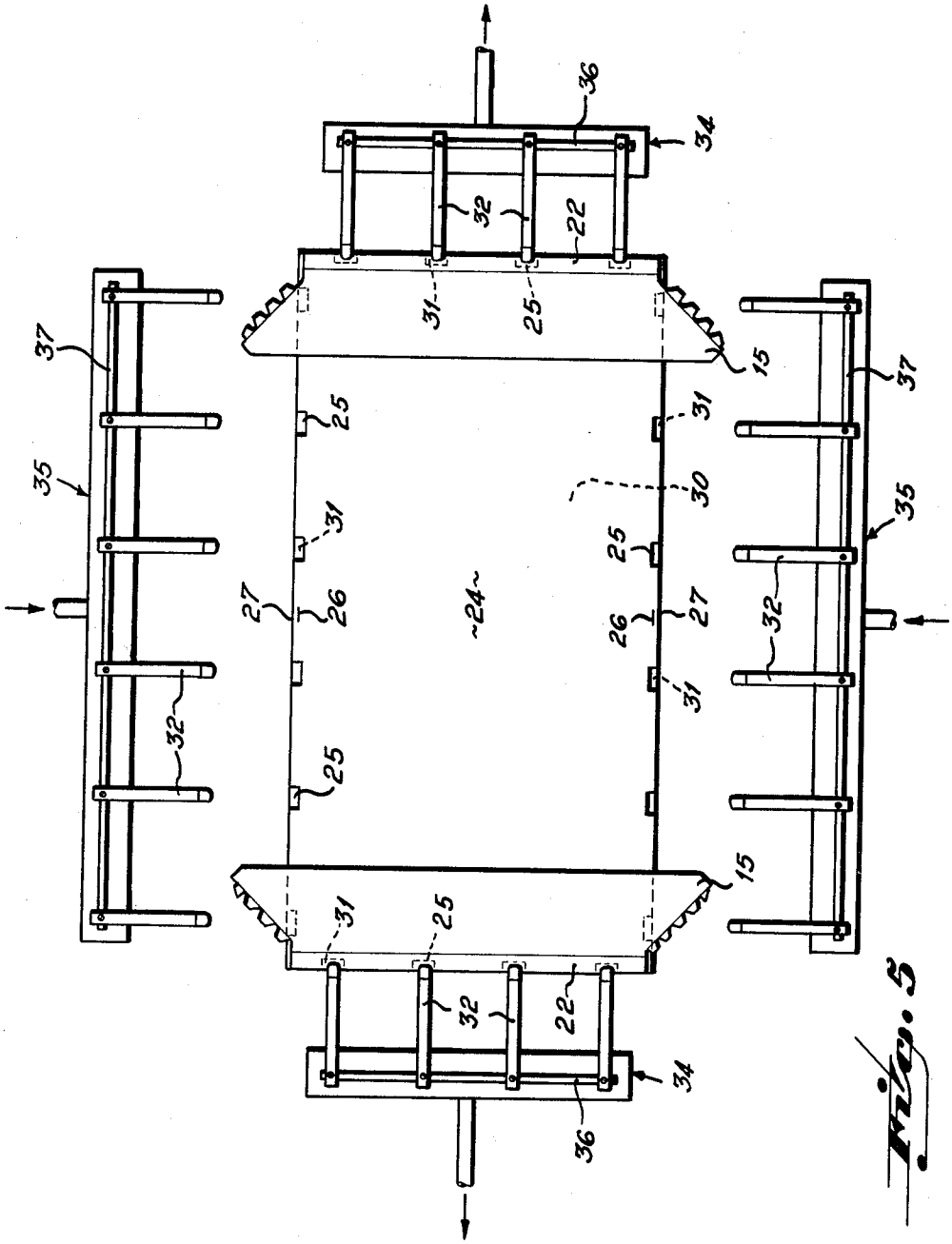


Fig. 5

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3,157,936

SIMULATED UPHOLSTERY FOR CASKETS

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Filed May 8, 1962, Ser. No. 193,090
3 Claims. (Cl. 27—19)

This invention relates to casket making and more particularly the invention is directed to the manufacture of the simulated casket upholstery.

For many years casket making has required the services of highly skilled, highly trained and highly paid upholsterers to apply beautiful upholstery to a casket shell. Because the application of the upholstery to the casket shell is a craftsman's art, the production of caskets was almost built around the activity of the upholsterers. The throughput of caskets was determined by the production rate of the upholsterers.

The work of the upholsterers is something less than uniform and, depending upon the degree of skill of the upholsterer, the products of a manufacturer may have varying degrees of quality. To improve this situation, a preformed casket insert which simulates upholstery has been developed by the assignee of the present invention and is described in Patents Nos. 2,664,615, 2,867,030 and 2,964,824. Those patents are directed to the formation of an insert for the lid of a casket, the insert being formed by four fabric covered paperboard rolls which when disposed in a casket lid form a frame and a fabric covered paperboard panel which is joined to the rolls to form a center portion of the insert. The thus formed insert is either tacked into position along its peripheral edges in the casket or is snapped into position in a manner described in those patents.

The preformed insert has the advantage of eliminating the need for highly skilled upholsterers and by imparting greater uniformity and attractiveness to the interior design of caskets. Additionally, it has been found that a comparatively unskilled person can form a casket interior much more rapidly than had been possible with the skilled upholsterer.

The present invention is directed toward improving the versatility of the preformed casket insert. While it has been possible to duplicate the work of upholsterers and, in fact to improve upon their work through the use of the preformed insert, nevertheless ability to provide varying designs is limited by the need for covering the panel members with fabric. In accordance with the present invention these limitations have been removed by the employment of a molded or decorated sheet, preferably plastic, in the center panel of the preformed insert. The molded plastic sheet obviously permits an infinite variation in the designs which can be employed in decorating a casket.

Certain qualities of sheet material give rise to problems when the sheets are attached to the inserts. The principal difficulty is that in the period between manufacture and burial, the casket might be subjected to many variations in temperature, humidity and the like which cause the material to expand and contract. For example, when caskets are shipped in boxcars from the manufacturer to a distant point, the boxcar might well remain on a siding and be subjected to high temperatures until the inside of the boxcar becomes quite hot. Under such extreme temperature conditions, the plastic has a tendency to warp and, regardless of the attractiveness of the original design on the center panel, if it is badly warped it is not likely to be acceptable to the customer.

The present invention is directed to a solution to the problem, the invention residing in the manner in which the panel sheet is secured to its surrounding frame members.

It has been an objective of the present invention to provide a method and means for attaching the center panel forming member to the associated frame forming members whereby the sheet is substantially free to expand and contract under the stress of varying temperatures without any perceptible distortion appearing due to warping.

These and other objectives of the invention will become more readily apparent from the following detailed description taken in conjunction with the accompanying drawings in which:

FIG. 1 is an elevational view of a casket lid with which the present invention is employed;

FIG. 2 is an exploded perspective view showing the sheet and the backing member to which it is attached;

FIG. 3 is a cross sectional view taken along lines 3—3 of FIG. 1;

FIG. 4 is a fragmentary view partly in section taken in the direction of the arrows 4—4 in FIG. 3, and

FIG. 5 is a diagrammatic plan view of apparatus for assembling the invention.

Referring to FIG. 1 of the drawings, a top section 10 of a casket is illustrated in elevational view, the top section having a premolded insert 11. The top section is normally provided with the usual dome-like configuration and is terminated in inwardly directed flanges 12. These flanges may have strips of wood attached to them forming a rectangular frame projecting inwardly from the flanges to which the premolded insert 11 may be tacked. However, in the preferred form of the invention which is illustrated, the flanges 12 are provided with groove forming members and the peripheral edges of the premolded insert are snapped into the groove forming members and covered with an ornamental plastic or rubber beading 13.

The principal elements of the premolded insert are two end roll forming members 15 and two side roll forming members 16, the lower side roll being covered by a strip of loose fabric 17 which drops into the casket and masks the hinges by which the top section is mounted on the casket.

While the invention herein is described as combined with fabric covered end and side rolls of a particular configuration, it is to be understood that the invention is not restricted to this particular organization. For example, the rolls need not be fabric covered but could be painted or formed from a decorative plastic. Further, for certain type of caskets, only one top and two side rolls can be employed with the invention.

The invention is directed principally toward the formation of the insert 11 and this is best illustrated by referring to FIG. 2. Preliminarily the rolls 15 and 16 are joined together to form a rectangular frame indicated at 20. At the inner edges of each roll 15 or 16, inwardly directed flanges 21 and 22 are formed, the flanges being adapted to receive the central panel.

The central panel is formed principally of a backing member 23 which may be of paperboard or other suitable material, in the preferred form of the invention, and a decorated plastic sheet 24. The decorated plastic sheet is formed in a known plastic molding operation wherein a die having the desired configuration is adapted to receive a sheet overlying the configurated surface of the die. The plastic sheet should be at least 0.040 inch thick for reasons set forth below. The assembly is raised to an elevated temperature and the space between the die and the sheet is evacuated to draw the sheet into the die configurations. Thus a desired design such as that shown in FIG. 1 is vacuum molded into the sheet. The sheet may be subjected to a further decorating operation as desired.

The thus formed sheet has notches or slots 25 formed in its peripheral edges at regularly spaced positions thereon. The sheet is applied to the paperboard back-

ing member by two staples 26 applied centrally of the side edges 27. These staples are applied to hold the sheet in position on the backing member 23 until the sheet and backing member are secured to the frame 20 but without unduly confining the periphery of the plastic sheet to the extent that warping occurs when the sheet is subjected to wide temperature variations. It should be understood that other securing means including rivets and adhesive could be used as well as the staples 26.

The backing member 23 and plastic sheet 24 are secured to the flanges 21 and 22 of the frame 20 with the plastic sheet being sandwiched between the flanges and the paperboard backing member. Staples are secured between the backing member and the flanges at the locations of the slots 25 so that the backing member 23 is securely fastened to the frame member 20 without passing any staples through the plastic member. Thus when the assembly is completed, the plastic sheet 24 may be considered to be floated between the frame member 20 and the backing member 23. When the plastic member is subjected to elevated temperatures, it is permitted to expand freely in its own plane whereby the stresses incurred by the change in temperature are dissipated in the expansion or contraction of the plastic sheet with respect to the backing member and flanges 21 and 22 between which it is sandwiched.

There is, of course, a certain amount of friction from the backing members and the flanges 21 and 22 which tends to resist expansion and contraction. If the plastic sheet is too thin, it has not the strength necessary to overcome the frictional forces and will warp. A sheet which is at least approximately 0.040 inch thick does have sufficient strength to expand against the restraining frictional forces and will perform satisfactorily.

Assembly of the center panel and frame member 20 is facilitated by the apparatus illustrated in FIG. 5. A fixture 30 having a plurality of stapling anvils 31 around its periphery is provided to support the backing member 23, the plastic sheet 24 and frame member 20 with its flanges 21 and 22 adapted to overlie the anvils 31. The anvils 31 cooperate with staple guns 32 which are divided into four sections, two end sections being indicated at 34 and the two side sections being indicated at 35. The staple guns of the end sections 34 are fixed on mounts 36, the mounts being interconnected by motion transmitting mechanism not shown which will cause the mounts to be moved toward and away from each other simultaneously. Similarly, the staple guns of sections 35 are fixed on mounts 37 which are interconnected by motion transmitting means not shown to permit their simultaneous movement toward and away from each other.

In the assembly operation, the plastic sheet is molded and has slots cut in the peripheral edges. Two staples 26 are applied to the side edge portion of the plastic sheet to secure it to the backing member 23. The assembled plastic sheet and paperboard backing member are positioned on the fixture 30 with the plastic sheet facing upwardly. The end roll forming members 15 are placed on the plastic sheet as indicated in FIG. 5 with their flanges 22 overlying the marginal portions of the plastic sheet and backing member. The end sections of staple guns 34 are then moved toward each other into proper position and, having arrived at the proper position, apply their staples to secure the backing member 23 to the flanges 22. The staples pass through the slots 25 formed in the plastic sheet so as to avoid contact with the plastic sheet.

After the joining of the panel to the end flanges 22, the staple guns of section 34 are moved away from each other and the side roll forming members 16 are positioned in place as described above. The staple guns of section 35 are moved toward each other until they arrive at the proper position for stapling. Then staples are passed through the backing member 23 and the side flanges 21 to secure them together while avoiding contact with the plastic sheet. Thereafter the members 15 and 16 are curved to form the rolls and are stapled at their ends to form the mitered corners.

The insert having thus been formed, it is assembled to the casket lid in a manner described in the patents referred to above or in any other suitable manner. When installed, the decorative central panel will be free to expand and contract under varying atmospheric conditions without disturbing its appearance by warping.

I claim:

1. A simulated upholstery insert for caskets comprising roll members in engagement at their ends to form a frame, each said roll member having a flange at its inner edge, a flat paperboard panel backing member stapled at a plurality of positions to said flanges, and a decorative plastic sheet stapled centrally to said backing member and having its peripheral edges sandwiched between the edges of said backing member and said flanges, said sheet having slots in its edges formed at the location of said staples whereby said panel is free to expand and contract without bowing.

2. A simulated upholstery insert for caskets comprising roll members in engagement at their ends to form a frame, each said roll member having a flange at its inner edge, a flat paperboard panel backing member stapled at a plurality of positions to said flanges, and a decorative plastic sheet having its peripheral edges sandwiched between the edges of said backing member and said flanges, said sheet having slots in its edges formed at the location of said staples whereby said panel is free to expand and contract without bowing.

3. A simulated upholstery insert for caskets comprising roll members in engagement at their ends to form a frame, a flat panel backing member stapled at a plurality of positions to the inner edges of said roll members, and a decorative molded sheet having its peripheral edges sandwiched between the edges of said backing member and said flanges, said sheet having slots in its edges formed at the location of said staples whereby said panel is free to expand and contract without bowing.

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