United States Patent [19]

Rowland

[11] **3,879,818**

[45] **Apr. 29, 1975**

[54] **COFFIN KIT**

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[73] Assignee: **Rowco Limited,** Toronto, Ontario, Canada

[22] Filed: **July 5, 1973**

[21] Appl. No.: **376,732**

[30] **Foreign Application Priority Data**

July 11, 1972 Canada 146805

[52] **U.S. Cl.** **27/7;** 27/10

[51] **Int. Cl.** **A61g 17/00**

[58] **Field of Search** ..... 27/7, 35, 3, 10, 2, 6; 264/45, DIG. 14; 156/245, 257, 258

[56] **References Cited**

UNITED STATES PATENTS

1,903,198	3/1933	Scott	27/7
2,697,266	12/1954	Raper	27/6
2,974,390	3/1961	Nelson	27/7
3,164,880	1/1965	Hotchkiss	27/7
3,523,918	8/1970	Gonzales	260/2.5
3,541,747	11/1970	Olson	27/3
3,545,055	12/1970	Pare	27/7

Primary Examiner—Richard A. Gaudet
Assistant Examiner—Rick Opitz

[57] **ABSTRACT**

A coffin is made by assembling coffin kit parts of self-skinned urethane foam decoratively moulded at 10 to 50 pounds per square inch. The coffin kit has seven sections, namely, a base section or tray, two one-piece side sections, two one-piece end sections and two one-piece lid sections. The tray has raised sides and ends and is preferably made in one piece. The side and end sections may have mitred ends which fit one against another to form corners or alternatively additional corner mouldings may be included, the side and end sections constituting a tub portion of the coffin.

12 Claims, 15 Drawing Figures

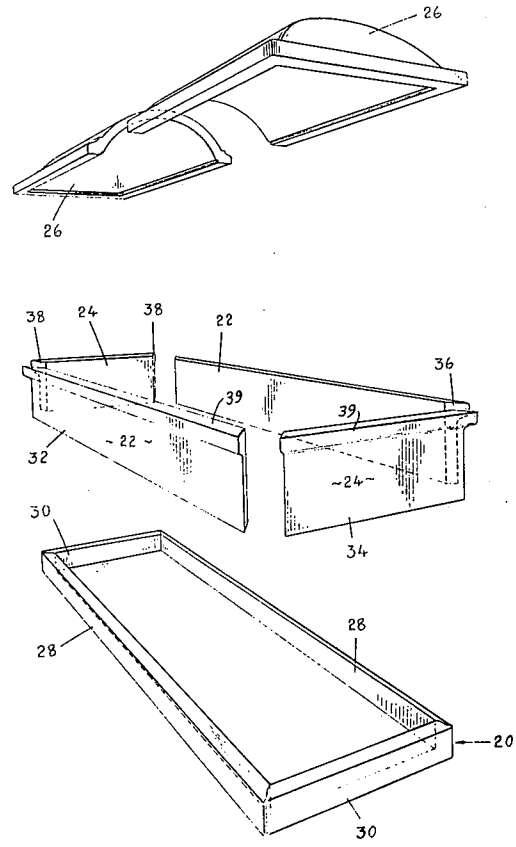
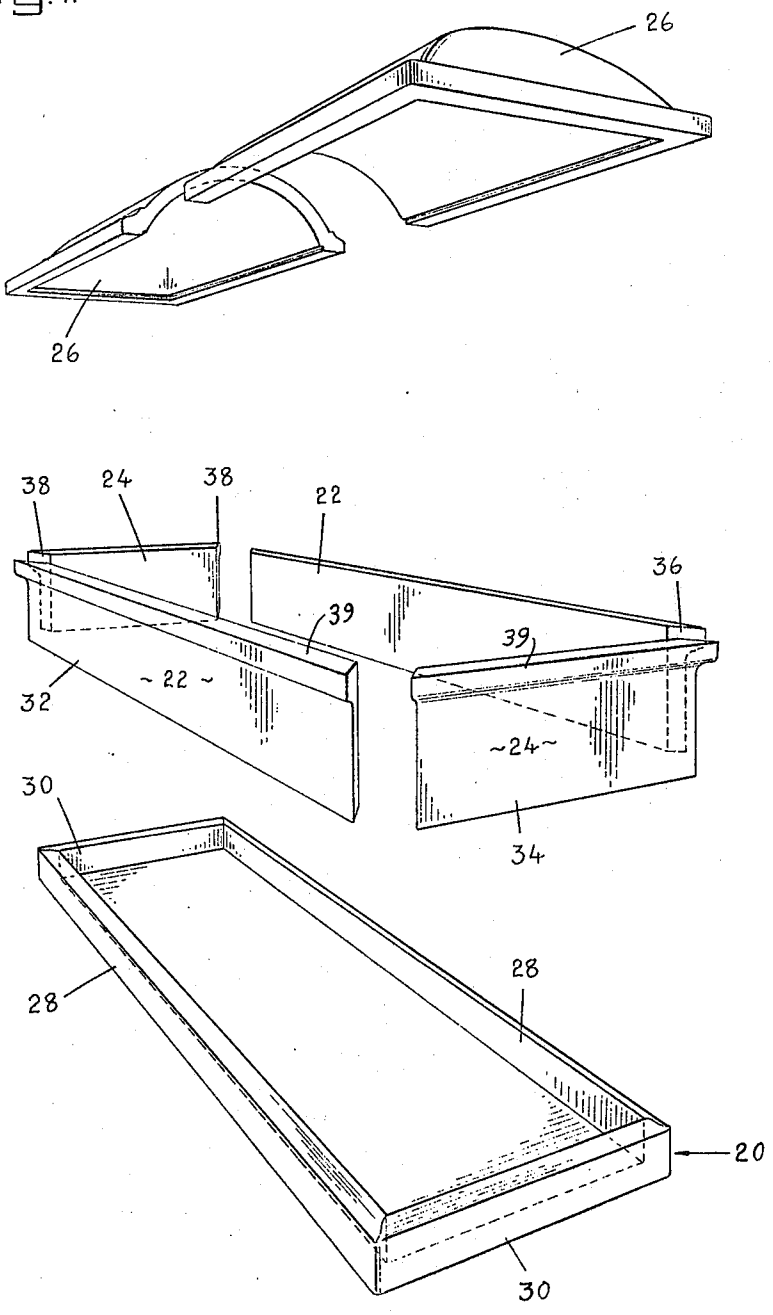


Fig. 1.



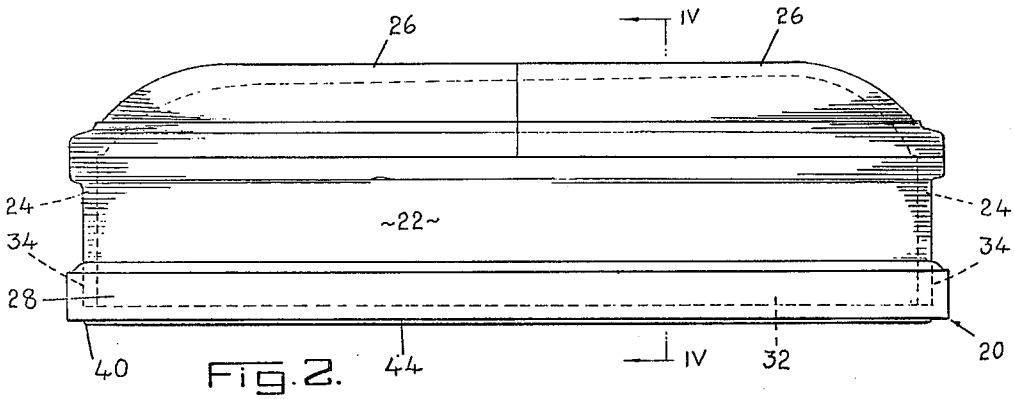


Fig. 2.

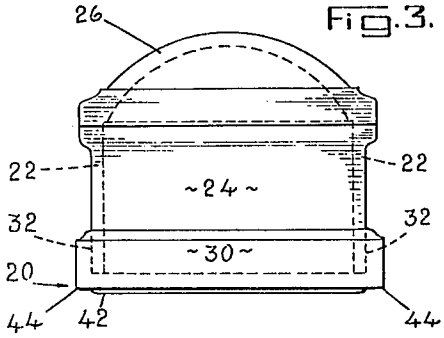


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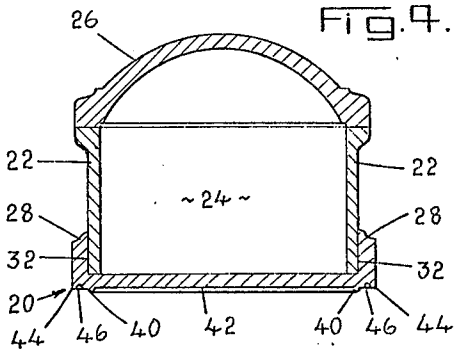


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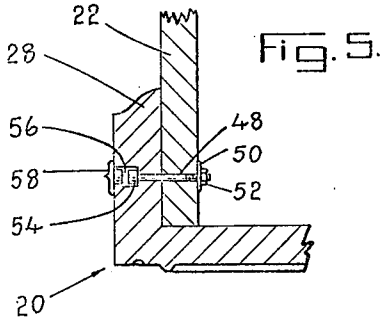


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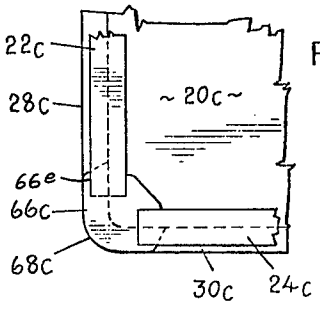


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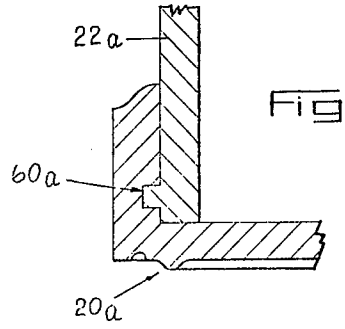


Fig. 6.

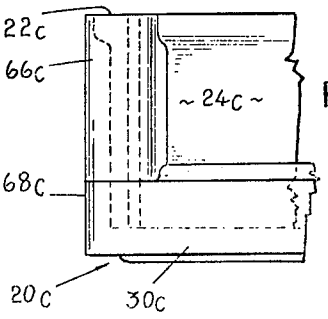


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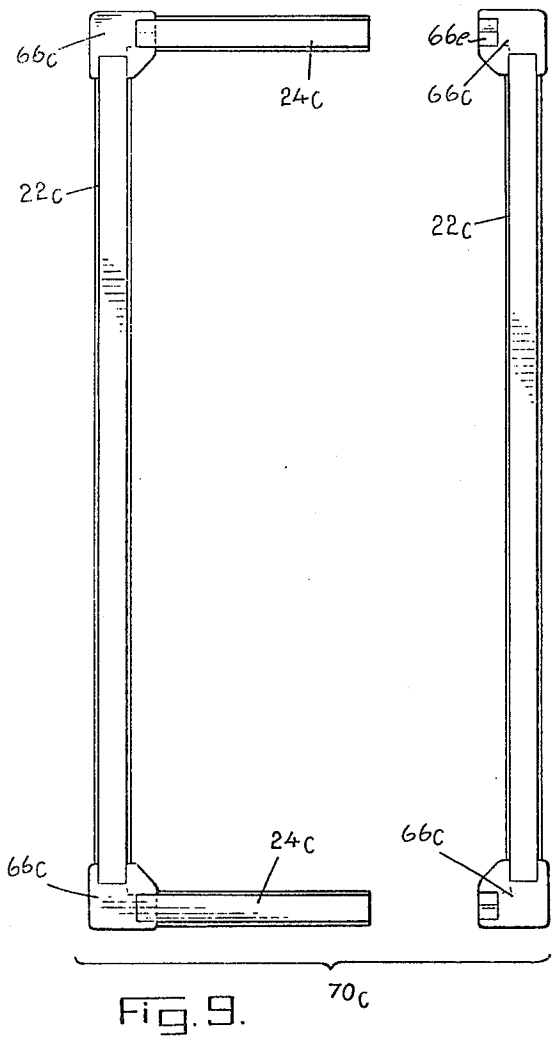


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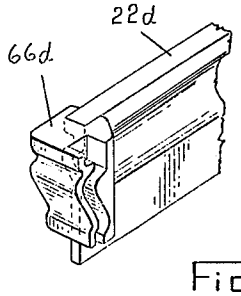


Fig. 10.

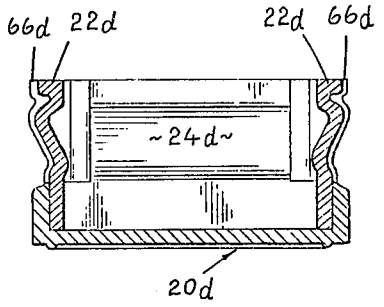


Fig. 11.

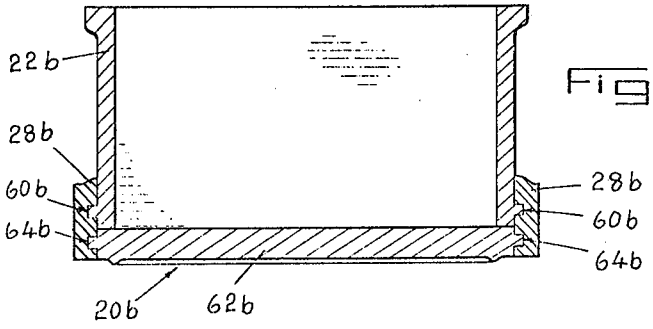


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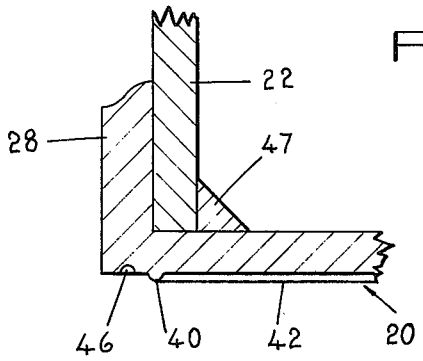


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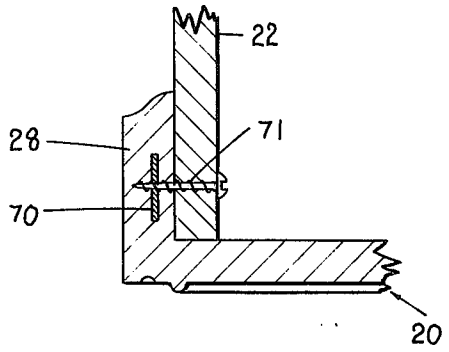


Fig. 14.

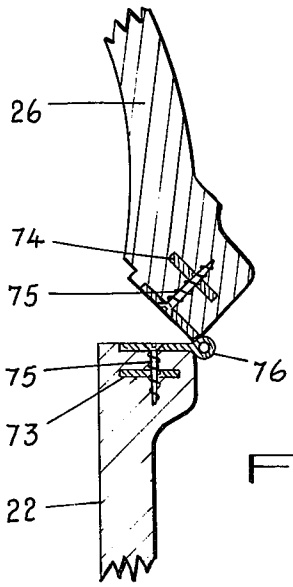


Fig. 15.

COFFIN KIT

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a coffin kit.

2. Description of the Prior Art

It is known to make coffins of wood or metal. Generally such coffins are expensive. Wooden coffins are usually of straight dimensions, though their lids may be vaulted. Although wooden coffins are often decoratively finished with intricate hand-carved scrollwork such decorative finishing requires skilled craftsmen and further increases costs. Also, wooden coffins tend to rot after they have been interred. Metal coffins can be made with curved sides but it is difficult to add further decorative features of the type that can be handcarved in wood. Also, metal coffins are usually heavy and although rust proofed they tend to rust. Most funeral directors do not employ skilled craftsmen to make coffins and they generally purchase coffins from manufacturers who are often located far away. Since coffins are bulky and contain a great deal of empty space they are expensive to ship.

SUMMARY OF THE INVENTION

According to this invention there is provided a coffin kit having parts which can be easily assembled to make a coffin. Although the coffin kit may contain standard coffin accessories such as handles, hinges, interior coverings and a pillow, the main parts of the coffin kit are of rigid moulded plastic material having a low density core and a high density mar resistant skin. A preferred material is self-skinning urethane foam of the type marketed under the trade mark Rubicast by Rubicon Chemicals Inc., a U.S. company owned by Imperial Chemical Industries Limited and UNIROYAL, Inc. This material is easy to work with and can be moulded at pressures of about 10 to 50 pounds per square inch although pressures of about 20 to 30 pounds per square inch are preferred. Using this material it is possible to produce coffins having several desirable features. Firstly, they are inexpensive to make and can compete with coffins of wood or metal. Although they are strong and will not rot they are lightweight. They will burn and therefore can be used by crematoria. Minor flaws can be touched up using a conventional filler.

A simple coffin kit according to this invention has a one-piece tray, two one-piece side sections, and two one-piece end sections which can be assembled together to form the tub portion of a coffin. Conventional epoxy glue has been found suitable to join the various plastic coffin kit parts together. The unassembled parts can be packaged without unnecessary wasted space so that the cost of shipping an unassembled coffin kit is significantly lower than the cost of shipping a finished coffin. Also, if one of the plastic coffin kit parts is severely flawed it is only necessary to replace that particular part rather than for example the entire tub portion so that the amount of waste is minimized.

Since moulds are used to make the plastic coffin kit parts it is a simple matter to make parts having decorative features by incorporating the decorative features directly into the moulds. For example, it is possible to make parts having the curved sides characteristic of metal coffins and also the intricate scrollwork characteristic of wooden coffins. It is also possible to make parts having an artificial wood-grain finish. Apart from the initial cost of the moulds the cost of making an ornate coffin is therefore not significantly different from the cost of making a modest coffin. Also, once the decorative features have been incorporated into the moulds the need for skilled craftsmen is reduced and the unassembled coffin kits shipped by the manufacturer can be assembled by unskilled workmen available even at funeral homes far away from the manufacturer. It is only necessary to join the plastic parts together, install the standard coffin accessories and, if desired, paint or otherwise coat the resulting coffin if this was not done to the parts by the manufacturer. No special tools are required since self-skinning urethane foam can be worked using conventional woodworking tools. Therefore the reduction in shipping costs achieved by shipping unassembled coffin kits rather than finished coffins need not be achieved at the expense of the quality of the finished product.

BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the invention are illustrated in the drawings wherein the same reference numerals indicate the same elements throughout and:

FIG. **1** is an exploded perspective view of one embodiment and shows coffin kit sections before they have been assembled to make a coffin;

FIG. **2** is a side elevation view of the sections of FIG. **1** after they have been assembled to make a coffin;

FIG. **3** is an end elevation view of the coffin of FIG. **2**;

FIG. **4** is a sectional view along the line IV — IV of FIG. **2**;

FIG. **5** is a fragmentary end sectional view of another embodiment and shows one means of joining a coffin kit side section and tray together;

FIG. **6** is similar to FIG. **5** and is a fragmentary end sectional view of yet another embodiment showing another means of joining a coffin kit side section and tray together;

FIG. **7** is a fragmentary top plan view of a further embodiment and shows generally straight sided coffin side and end sections joined together by a corner moulding and inserted in a tray-like base;

FIG. **8** is a fragmentary end elevation of the embodiment of FIG. **7**;

FIG. **9** is a partly exploded top plan view of the embodiment of FIGS. **7** and **8** showing the side and end sections and corner mouldings being assembled together to form a tub before insertion in the tray which is not shown;

FIG. **10** is a fragmentary perspective view of a curved side section and a corner moulding therefor;

FIG. **11** is an end sectional view of an embodiment having corner mouldings and curved side sections of the type illustrated in FIG. **10**;

FIG. **12** is an end sectional view of an embodiment similar to the one illustrated in FIG. **6** but having a tray consisting of more than one part;

FIG. **13** is a fragmentary sectional view of another embodiment showing a supplemental moulding for increasing the rigidity of the structure;

FIG. **14** is a fragmentary sectional view of another embodiment showing supplemental means for securing sections of a coffin together; and

FIG. **15** is a fragmentary sectional view showing means for securing hardware to sections of the coffin

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The coffin kit parts shown in FIG. **1** are a one-piece base section or tray **20**, two one-piece side sections **22**, two one-piece end sections **24** and two one-piece lid sections **26**. The tray **20** has raised side and end portions **28** and **30** respectively. All of the sections are of rigid moulded plastic material such as self-skinning urethane foam. The sections can be made using only three moulds. The tray **20** is made in a base section mould. The identical side sections **22** are made in a side section mould. The end sections **24** are made by cutting side sections **22** into smaller pieces. Alternatively, the end sections **24** can be made by placing inserts into the side section mould to divide it into smaller lengths. Of course it would also be possible to make the end sections **24** in a separate end section mould. The identical lid sections **26** are made in a lid section mould. To make a coffin the side and end sections **22** and **24** are assembled in the tray **20** with their bottom outer surfaces **32** and **34** respectively fitting snugly against the raised side and end portions **28** and **30** respectively of the tray **20**. The side and end sections **22** and **24** have mitred ends **36** and **38** respectively and when the side and end sections **22** and **24** are assembled together adjacent mitred ends **36** and **38** fit one against another to form corners. These ends can be mitred by including suitable inserts in the mould or alternatively by merely cutting sections after they have been made in the mould. The sections **22, 24** when assembled constitute a tub fitting snugly within the tray **20** between the raised sides and ends **28, 30** of the tray. The upper edges **39** of the sections **22, 24** are thickened to add stiffness to the tub. The lid sections **26** provide identical halves of a lid for the coffin. The lid sections **26** shown in FIG. **1** are of a conventional vaulted shape. For the particular coffin kit shown in FIG. **1** the order of assembling is not important except of course that the lid sections **26** would not be added until the side and end sections **22** and **24** had been assembled. The standard coffin accessories included with the coffin kit will generally includes hinges and screws which can be used to attach the lid sections **26** to a side section **22**.

Although the standard coffin accessories included with the coffin kit will generally include handles to be affixed to the side sections **22** these handles are usually not very strong and are more decorative than functional. The tray **20** is therefore formed so that it can be easily lifted without using these handles. As best seen in FIGS. **2, 3** and **4** the tray **20** is formed with side and end ridges **40** and **42** which rest on the ground and support the main body of the tray **20** off the ground so that there is sufficient room between the ground and the bottom outside edges **44** of the sides of the tray **20** to allow insertion of one's fingers to lift the tray. As best seen in FIG. **4** finger grooves **46** are provided along the sides of the bottom surface of the tray **20** to make the tray **20** easy to grip.

The various sections can be joined together using a conventional epoxy glue that sets over a period of about 12 hours. It has been found that the bond which forms is very strong and that it is not really necessary to provide additional joining means. Nevertheless additional joining means may be provided if desired for extra stability while the glue is setting or merely for aesthetic reasons. For example, as shown in FIG. **13**, a moulding **47** may be set into the tray **20** and glued in place with epoxy glue to assist in holding the side and end sections **22, 24** against the raised sides **28** and ends **30** of the tray, or instead of the moulding **47** conventional angle irons held in place by screws may be added or, as shown in FIG. **5**, decorative fasteners may be added. In FIG. **5** a bolt **48** passes through the raised side portion **28** of the tray **20** and through the side section **22** and is held in place by a washer **50** and a nut **52**. The head **54** of the bolt **48** is recessed in a hole **56** and a decorative plug **58** is added to hide the hole **56**.

FIG. **6** shows a coffin kit side section **22*a*** and tray **20*a*** joined together with a tongue and groove **60*a***. Joints with a tongue and groove will generally have increased stability but care should be exercised when adding tongues and grooves to the coffin kit parts of this invention or problems may be encountered in assembling the parts together. For example, if tongues and grooves similar to the tongue and groove **60*a*** were to be added to the parts of the coffin kit shown in FIG. **1** it would not be possible to use a tongue and groove for every joint between the side and end sections **22** and **24** and the tray **20** because a projecting tongue would interfere with the positioning of the last side or end section **22** or **24** in the tray **20**. Of course this problem could be overcome by using a tongue and groove only for those joints between the tray **20** and the side sections **22** or only for those joints between the tray **20** and the end sections **24**. However this would mean that the side and end sections **22** and **24** could not be made so conveniently using a single mould.

FIG. **12** shows an alternative construction which uses tongues and grooves and which is similar to the construction shown in FIG. **6** except that the tray **20*b*** consists of more than one part. The tray **20*b*** consists of a bottom section **62*b***, two side mouldings **28*b*** and two end mouldings which are not shown but which are similar to the side mouldings **28*b***. These side and end mouldings provide raised side and end portions of the tray **20*b*** and they have mitred ends which fit one against another to form corners of the tray **20*b***. The side mouldings **28*b*** are joined to the bottom section **62*b*** with tongues and grooves **64*b*** and to the side sections **22*b*** with tongues and grooves **60*b*** which are similar to the tongue and groove **60*a*** shown in FIG. **6**. The end mouldings are joined to the bottom section **62*b*** and to the end sections with similar tongues and grooves. This construction allows the side and end sections to be positioned on the bottom section **62*b*** without interference whereupon it is then a simple matter to align the side and end mouldings and move them into position. The side and end mouldings can be made using a single side moulding mould, the end mouldings being made by cutting extra side mouldings **28*b*** into smaller pieces.

A simple method of providing additional joining means is to staple the various coffin kit parts together while the glue is setting. Epoxy coated staples have been found to be particularly suitable for this purpose. The epoxy coating melts as the staples are inserted into the coffin kit parts and then resolidifies to form a strong bond between the staples and the coffin kit parts.

FIGS. **7** and **8** show an embodiment of the invention wherein the side and end sections **22*c*** and **24*c*** do not have mitred ends. Instead, four corner mouldings **66*c*** are provided with vertical sots **66*e*** to receive adjacent ends of the side and end sections **22*c*** and **24*c***. The corner mouldings **66*c*** rest on the side and end portions **28*c***

and 30*c* of the tray 20*c* at the four corners 68*c* of the tray 20*c*. The corner mouldings 66*c* are made in a corner moulding mould. When the side and end sections 22*c* and 24*c* are generally straight sided as shown in FIGS. 7 and 8 the various coffin kit parts need not be assembled in any particular order. For example, the four corner mouldings 66*c* may be placed in position at the four corners 68*c* of the tray 20*c* and the side and end sections 22*c* and 24*c* may then simply be aligned and dropped into position from above. Alternatively, as shown in FIG. 9, the four corner mouldings 66*c* and the side and end sections 22*c* and 24*c* may first be assembled together as a single tub unit 70*c* which may then be inserted into the tray 20*c*.

For a coffin kit having curved side and end sections with mitred ends the order of assembling is not particularly important and would be similar to that for the embodiment shown in FIG. 1 having generally straight sided side and end sections 22 and 24 with mitred ends 36 and 38. However when, as shown in FIGS. 10 and 11, corner mouldings 66*d* are used with a one-piece tray 20*d* and curved side and end sections 22*d* and 24*d* the order of assembling is more important. For example, it is not possible to insert the ends of the side and end sections 22*d* and 24*d* into the corner mouldings 66*d* from above and it is therefore necessary to assemble the side and end sections 22*d* and 24*d* and the corner mouldings 66*d* into a single tub unit similar to the unit 70*c* shown in FIG. 9. This unit is then inserted into the tray 20*d*. However care should still be exercised because if the unit is assembled in a stepwise manner, as for example starting with a corner moulding 66*d* and proceeding in order around the periphery of the unit, problems may be encountered in fitting the last corner moulding 66*d* into the unit. Generally the plastic side and end sections 22*d* and 24*d* are flexible enough to allow them to be distorted to accommodate the insertion of the last corner moulding 66*d* into the unit. Nevertheless, according to a preferred order of assembling it is not necessary to distort the side and end sections 22*d* and 24*d*. Two corner mouldings 66*d* are fitted to opposite ends of the same side or end section 22*d* or 24*d*. The other three side and end sections 22*d* and 24*d* and the other two corner mouldings 66*d* are then assembled together. The unit can then be assembled without distorting any of the parts by aligning the parts and moving them together in a manner similar to that indicated in FIG. 9.

As described above, the parts of the coffin kit illustrated are of rigid moulded plastic material having a low density foamed core and a high density mar resistant skin. Where the sections of the coffin are to be connected together using screws, or for connecting hardware to the coffin with screws, it is possible to provide the coffin sections with screw-receiving inserts as illustrated in FIGS. 14 and 15. In FIG. 14 the raised side 28 of the tray 20 has, within its cellular foamed core, a plate 70 running longitudinally of the side 28, and selftapping screws 71 driven through the side section 22 and into the plate 70 are firmly anchored therein. The plate 70 may be a thin metal strip or a perforated metal plate or a block or strip of wood that assists in holding the screws. The plate 70 can be set in the tray-forming mould before the foamable ingredients for the tray are poured into the mould. Similar plates may be embedded in sections of the coffin that are to receive hardware. As illustrated in FIG. 15, a side section 22 and a lid section 26 have plates 73, 74 set therein to receive screws 75 that affix a hinge 76 to the coffin lid and side.

What I claim as my invention is:

1. A coffin kit comprising a base in the form of a tray having raised sides and ends, a tub that fits snugly within the tray between the raised sides and ends thereof, and a lid for the tub; the tray, tub and lid all being of rigid moulded plastic material having a low density core and a high density mar resistant skin; the base and its raised sides and ends comprising a one-piece section, the tub comprising two one-piece side sections and two one-piece end sections, and the lid comprising two one-piece lid sections; the side and end sections having mitred ends, adjacent mitred ends fitting one against another to form corners when the side and end sections are assembled together.

2. A coffin kit comprising a base in the form of a tray having raised sides and ends, a tub that fits snugly within the tray between the raised sides and ends thereof, and a lid for the tub; the tray, tub and lid all being of rigid moulded plastic material having a low density core and a high density mar resistant skin; the base and its raised sides and ends comprising a one-piece section, the tub comprising two one-piece side sections and two one-piece end sections, and the lid comprising two one-piece lid sections; four one-piece corner mouldings with which the side and end sections can be assembled to form the tub, the corner mouldings being adapted to rest on the raised sides and ends of the tray at corners of the tray.

3. A coffin kit comprising a base in the form of a tray having raised sides and ends, a tub that fits snugly within the tray between and against the raised sides and ends thereof, and a lid for the tub; the tray, tub and lid all being of rigid moulded plastic material having a low density core and a high density mar resistant skin; the tub comprising two one-piece side sections and two one-piece end sections, the side and end sections having mitred ends, adjacent mitred ends fitting one against another to form corners when the side and end sections are assembled together.

4. A coffin kit as claimed in claim 3, wherein the plastic material is self-skinning urethane foam.

5. A coffin kit as claimed in claim 4, assembled with epoxy glue holding the sections of the tub together and to the base.

6. A coffin kit as claimed in claim 3, wherein a plurality of the sections are decoratively moulded.

7. A coffin kit as claimed in claim 3, wherein the base and its raised sides and ends comprise a one-piece section.

8. A coffin kit as claimed in claim 7, wherein the tray has, at its underside, supporting means which elevate the bottom outside edges of the sides of the tray sufficiently to allow insertion of one's fingers to lift the tray.

9. A coffin kit as claimed in claim 3, wherein the side sections and end sections of the tub have thickened upper edges to stiffen the tub.

10. A coffin kit comprising a base in the form of a tray having raised sides and ends, a tub that fits snugly within the tray between and against the raised sides and ends thereof, and a lid for the tub; the tray, tub and lid all being of rigid moulded plastic material having a low density core and a high density mar resistant skin; the tub comprising two one-piece side sections and two one-piece end sections and four one-piece corner

mouldings interfitting with the side and end sections at the corners of the tray to form corners of the tub.

11. A coffin kit as claimed in claim **10,** wherein the base and its raised sides and ends comprise a one-piece section.

12. A coffin kit as claimed in claim **11,** wherein the corner mouldings have slots into which the side and end sections fit in assembling the tub.

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