June 5, 1934.

A. F. H. SCOTT

BURIAL VAULT

Filed April 8, 1933

1,961,988

2 Sheets-Sheet 1

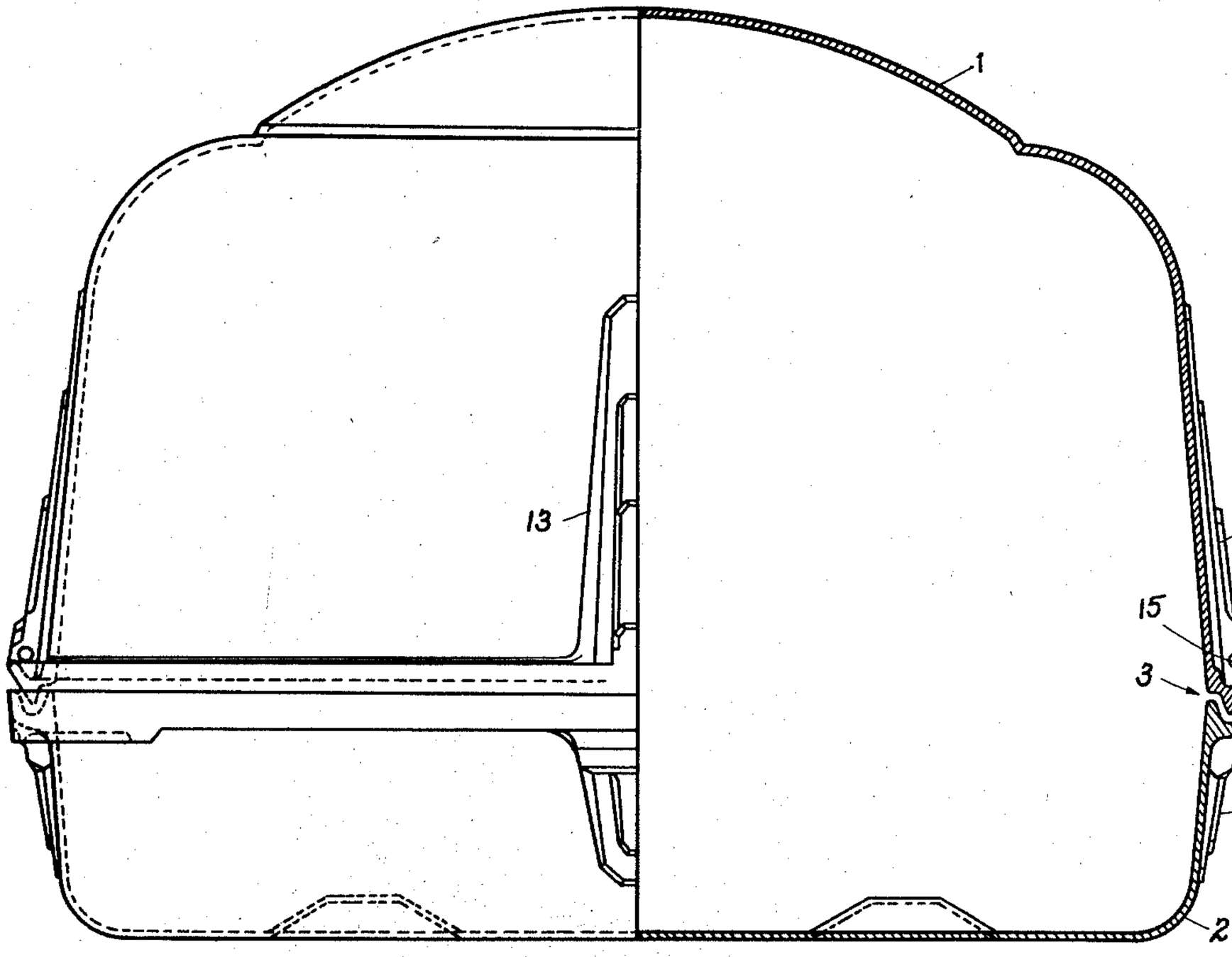

Fig. I

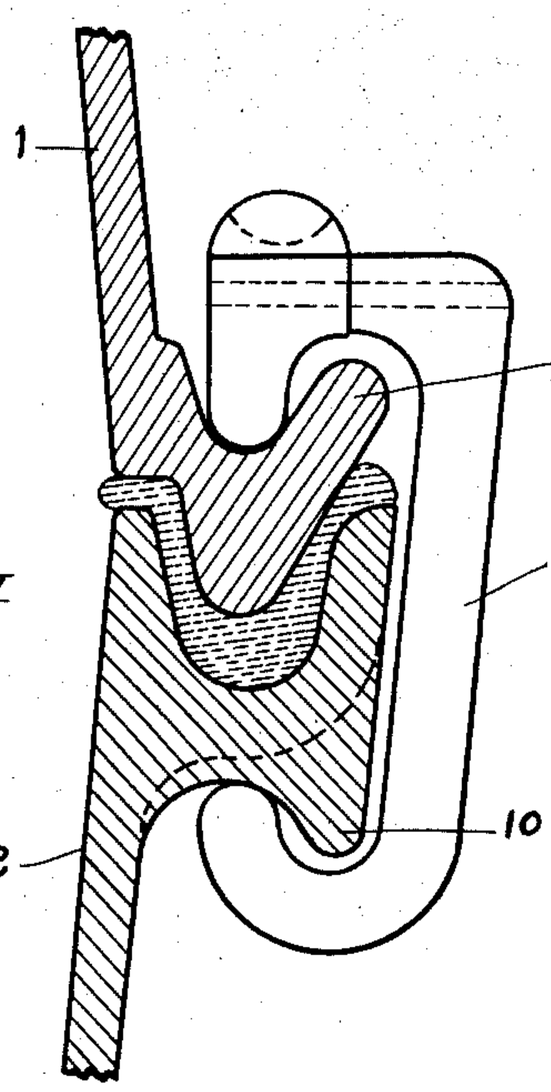

Fig. IV

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2 Sheets-Sheet 2

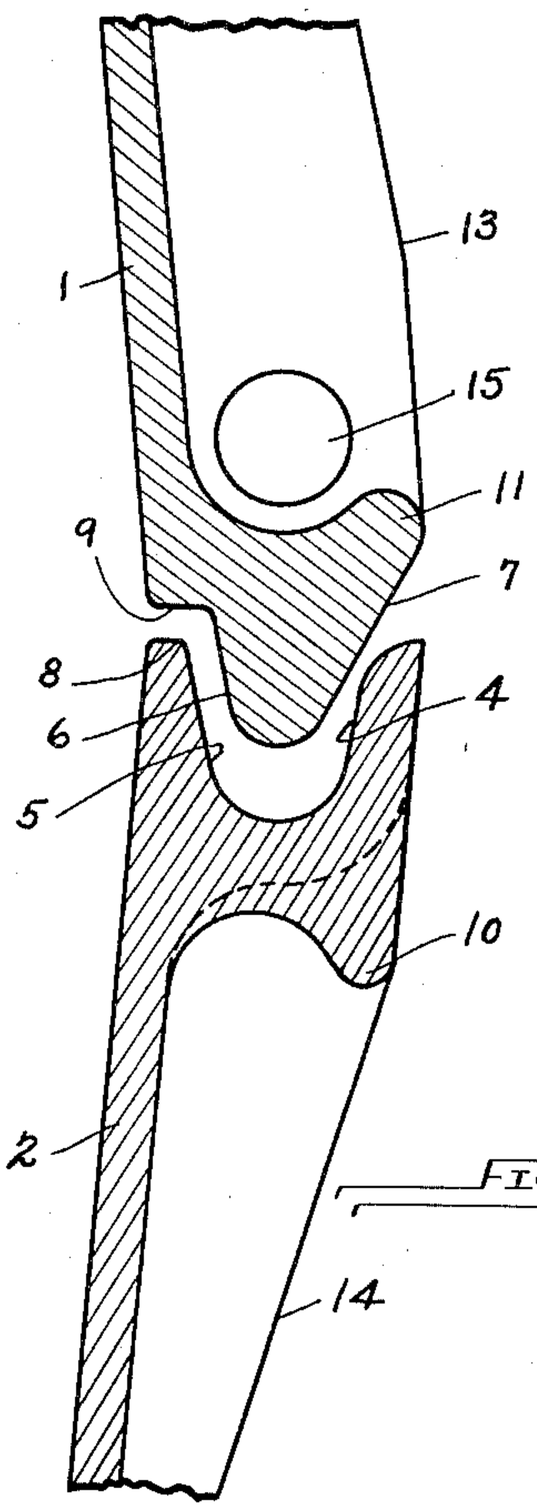

Fig. II

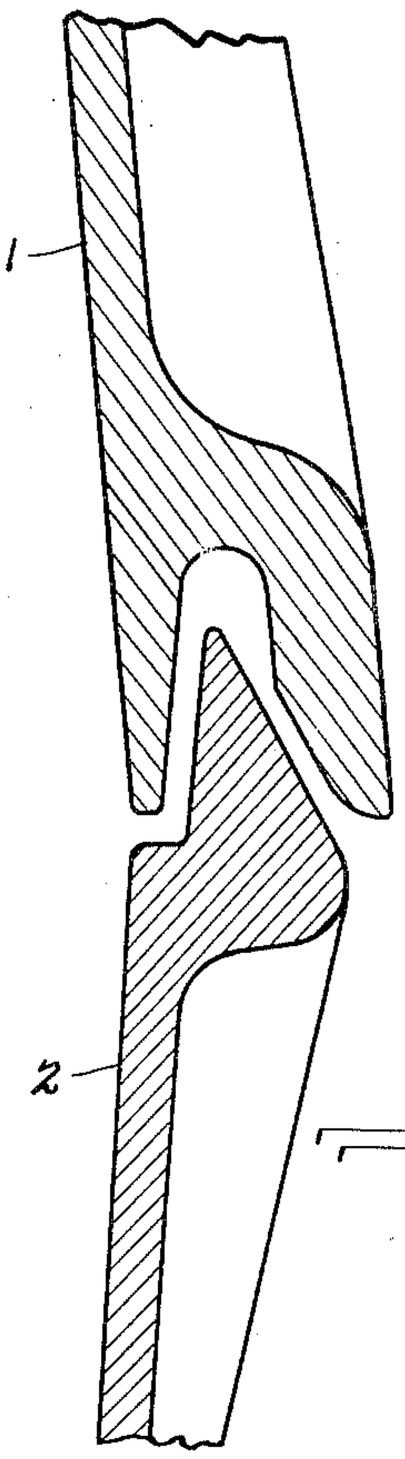

Fig. III

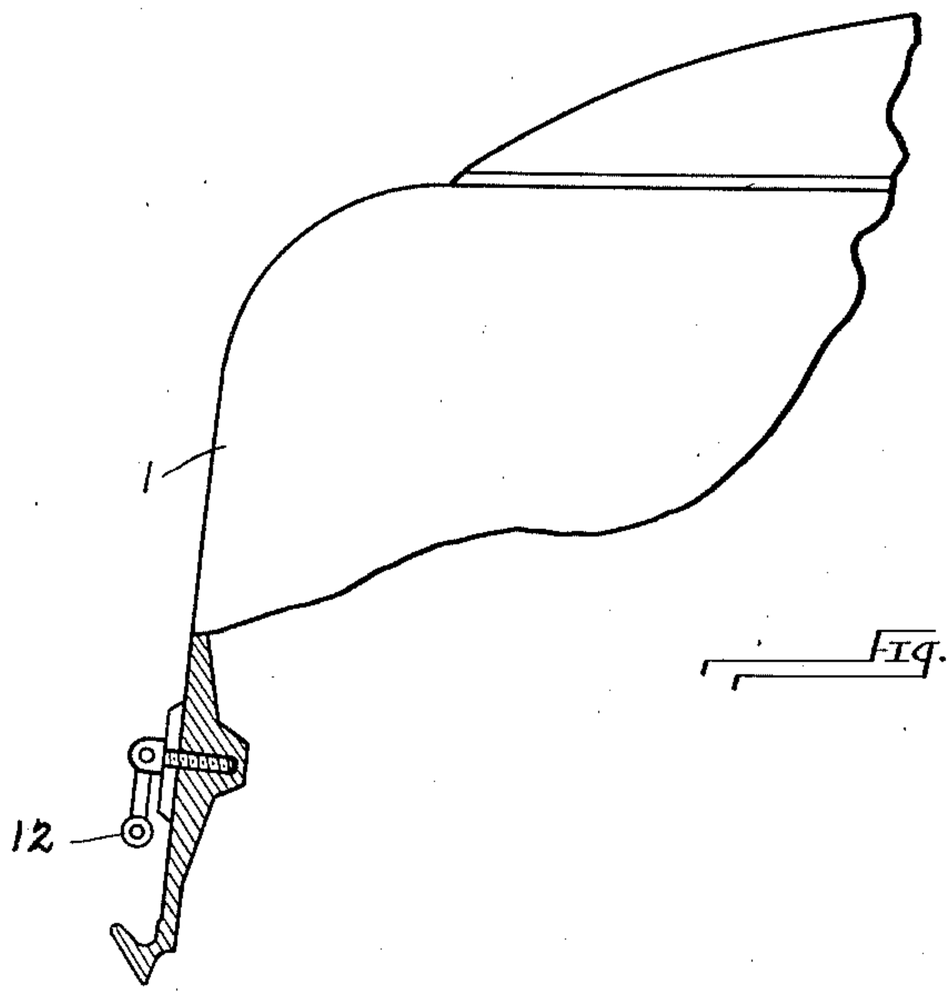

Fig. V

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UNITED STATES PATENT OFFICE

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BURIAL VAULT

Allison F. H. Scott, Pleasantville, N. Y.

Application April 8, 1933, Serial No. 665,143

2 Claims. (Cl. 27—17)

This invention relates to burial vaults and containers generally for the burial of dead bodies, and consists in an improvement in structure, in consequence of which the hermetic seal of the union of the container parts may be rendered more effective and more durable.

Fig. I is a view partly in end elevation and partly in cross-section of a vault in which my invention is embodied; Fig. II is a fragmentary view on the same plane of section and to larger scale; Fig. III is a view corresponding to Fig. II, though at a different point in the extent of the union of the parts, and illustrating a permissible variation; Fig. IV is a view corresponding to Fig. II, though also at a different point in the extent of the union of the parts, and illustrating a feature of adaptability; Fig. V is a view on a like plane of section through the rim of the upper or cover portion of the vault, and illustrating a permissible elaboration.

The container of my invention, which, ordinarily, will be the vault of established usage—that is to say, the outer container, within which the corpse-containing casket is inclosed, and upon which the earth of the usual burial immediately rests,—consists of two imperforate shells 1 and 2, formed preferably of cast-iron, and meeting in a horizontally extending seam 3. The seam is hermetically tight, and, accordingly, when burial has been made, the contents of the vault are inaccessible to air and moisture from without. The meeting edges are provided with co-operating tongue and groove; the groove is of such depth that in the assembly the tip of the tongue will not reach its bottom. In the assembly the descending cover will come to rest with abutment at the edge of tongue and groove, while still the tip of the tongue remains relatively remote, spaced at a greater interval from the bottom of the groove. Either of the two possible arrangements may be employed: the groove may be in the base member or in the cover member, and the tongue in cover or base, as may be preferred. These all are known features or characteristics.

My invention consists in so particularly shaping tongue and groove that as the cover descends to position upon the base member the space formed by and between tongue and groove shall diminish on one side of the tongue more rapidly than on the opposite side; with the consequence and effect that there will be a flow of the plastic material (ordinarily pitch), which has been preliminarily applied, beneath the tongue and over one rim of the groove at one side; and, with proper shaping of parts, a more secure sealing may be effected.

Comparing Figs. I and II, it will be perceived that, whereas the opposite walls 4 and 5 of the groove (formed in this case in base member 2) are of equal inclination to the vertical, the walls 6 and 7 of the co-operating tongue are unequal in inclination. The angle formed by and between surfaces 6 and 7 of the tongue is greater than that formed by and between the surfaces 4 and 5 of the groove. In the assembly the opposite surfaces 4 and 7 diverge from rim to groove bottom, while the surfaces 5 and 6 extend in substantial parallelism. It will be perceived that, in consequence of this lack of correspondence, as the cover descends upon the base the space between tongue and groove narrows, and that it narrows more rapidly upon one side (the outer) than upon the other side (the inner). The effect upon an included body of plastic, such as pitch, is manifest. It is like squeezing a tube at one end: the contents are consolidated, the whole body is caused to flow from one side, across the bottom of the groove, and out at the opposite rim of the groove; entrapped air is dislodged, and the plastic material is extruded. At the point of such extrusion shoulders 8 and 9 are formed: flat surfaces, disposed horizontally. These shoulders 8 and 9 are so disposed that in the assembly the space between them is not greater than the space interval (measured in the direction of closure) between any other points on the two shells. Between them as a mouth the extrusion is effected, and they ultimately sustain the weight of the cover, and under that weight the body of fluid-sealing material (pitch) is compressed, with augmentation of sealing effect.

Let then the tongue-and-groove union upon opposite sides be brought into simultaneous consideration, and let it be supposed that the descending cover 1 has not descended in accurately vertical course to its ultimate position, but let it be assumed that on the right (Fig. I) the tip of the tongue initially approaches contact with the outer rim of the groove; and that, correspondingly, of course, on the opposite side, the tongue will approach contact with the inner rim of the groove. As then the cover continues to descend it will be the outer wall of the groove on the right-hand side that will be the guiding member; and, while on the right the condition already described of more rapid narrowing of the space in the outer side of the groove will prevail, it will be remarked that on the opposite, left-hand side, the opposite faces 5 and 6 of tongue and groove will actually draw apart, and that on both sides the same effect will be gained, of a flow of seal-

ing material through the groove inwardly and over the inwardly disposed surfaces 8.

The inner rim of the groove is, for purposes already indicated, flattened; the outer rim, in order to facilitate assembly, is rounded. The rounded ends at the four corners of the perimeter of the rim of the basal member, due to the relation of the acute inclination of the tongue in the shell member, further act to facilitate the easily self-sealing of the members due to the weight of the the shell member bearing on the plastic sealing means in the groove of the basal member.

Consideration of Fig. II will, in the light of what has been said, make plain that in the closing of the vault the same conditions obtain: the outer rounded rim of the groove is effective to shift the descending cover laterally (if it be slightly out of line) rapidly to true position; the space between tongue and groove narrows more rapidly on the outer side, with the effect that the body of plastic material (pitch) engaged by tongue and groove is caused to flow inward, and is consolidated; bubbles of entrapped air work out from the bottom of the groove; there is augmented extrusion over the horizontally disposed inner rim of the groove, and the meeting faces of cover and base along these inner margins afford in larger measure sealing effect. The absence from the outer rim of the tongue-and-groove union of such opposed horizontally disposed surfaces as the surfaces 8 and 9 at the inner rim effects concentration of the sealing pressure upon the body of sealing material extruded between the surfaces 8 and 9.

If then at any point the quantity of sealing substance (ordinarily pitch) be relatively little, the tendency of the closing lid to extrude what there is between the approaching surfaces 8, 9 will tend to correct the deficiency and more certainly to insure adequate sealing.

The characteristic is that on one side (the inner side) of the tongue-and-groove union the opposed surfaces, because of their relative degrees of inclination, approach one another with relative slowness, while on the opposite side (the outer side) the opposed surfaces, for the same reason, approach one another more rapidly.

Certain incidental features remain to be indicated. The tongue-and-groove union involves an increase in the thickness of the two shells at their rims. The enlargement is, as the drawings show, external. The enlargement of the edge of the lower shell or base portion affords opportunity to form at that point a downwardly turned exterior lip 10, adapted to be engaged by hooks, for the purpose of lowering this part to position in a grave. Similarly the outward enlargement of the cover may be provided with an upwardly turned lip 11, and the two lips 10 and 11 may then be employed co-operatively to receive a clamping member 12 (Fig. IV), useful particularly when such a vault is to be shipped.

Fig. V shows, additionally, that the cover 1 may be thickened adjacent its rim for the application, by means of set-screws, and without break in the integrity of the shell, of handles 12, useful in lifting the cover and carrying it, before it is engaged by lowering apparatus.

Externally, ornamental bands 13, 14 may be formed as integral parts of the castings, and through the bands 13 with which the cover shell is so ornamented perforations 15 may extend, where anchorage may be had for lowering the cover 1 to place upon the basal shell 2 when the latter has already been placed at the bottom of an open grave. With the provision of such perforations 15, the handles 12 may or may not be employed.

I claim as my invention:

1. A container for a corpse to be buried, consisting of two shells adapted to be brought together along a horizontally extending seam-line, the two shells at their rims being of complementary tongue-and-groove shape, the tongue being of wide angular taper and short and the groove being of narrow angular flare and deep, one of such complementary parts being oblique in extent and in that respect unlike the companion part, whereby, in assembly, a space is defined by and between tongue and groove that is wider at the bottom than at the edges of the groove, and whereby the weight of the upper shell, brought to bear upon a body of plastic sealing material introduced into such space, effects flow of the sealing material from one side of the groove, transversely across the bottom of the groove, toward the other side, and extrusion of the sealing material through the narrow space at the edge of the groove.

2. A container for a corpse to be buried, consisting of two shells adapted to be brought together along a horizontally extending seam-line, the two shells at their rims being of complementary tongue-and-groove shape, the tongue being of wide angular taper and short and the groove being of narrow angular flare and deep, the tongue from its base to its tip extending obliquely in inward direction, toward the interior of the container, and the groove being vertical in its extent, whereby, in the assembly, a space is defined by and between tongue and groove that is wider at the bottom than at the edges of the groove, and whereby the weight of the upper shell, brought to bear upon a body of plastic sealing material introduced into such space, effects flow of the sealing material from the outer side of the groove, across the bottom of the groove, toward the other side, and compacting of the sealing material in the narrow space at the inner edge of the groove.

ALLISON F. H. SCOTT.