April 15, 1958 J. A. CHRISTIAN 2,830,355

CASKET LOCK STRUCTURE

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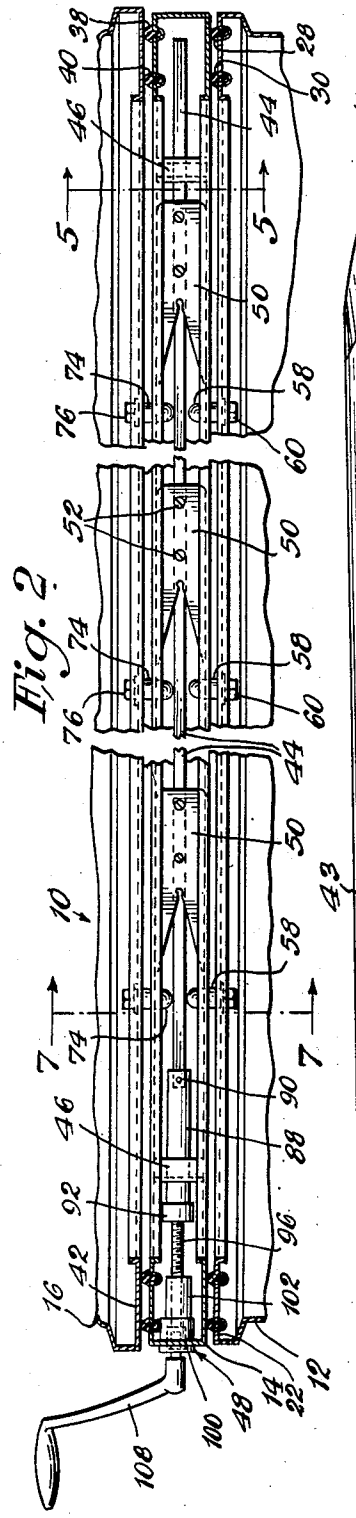


Fig. 2

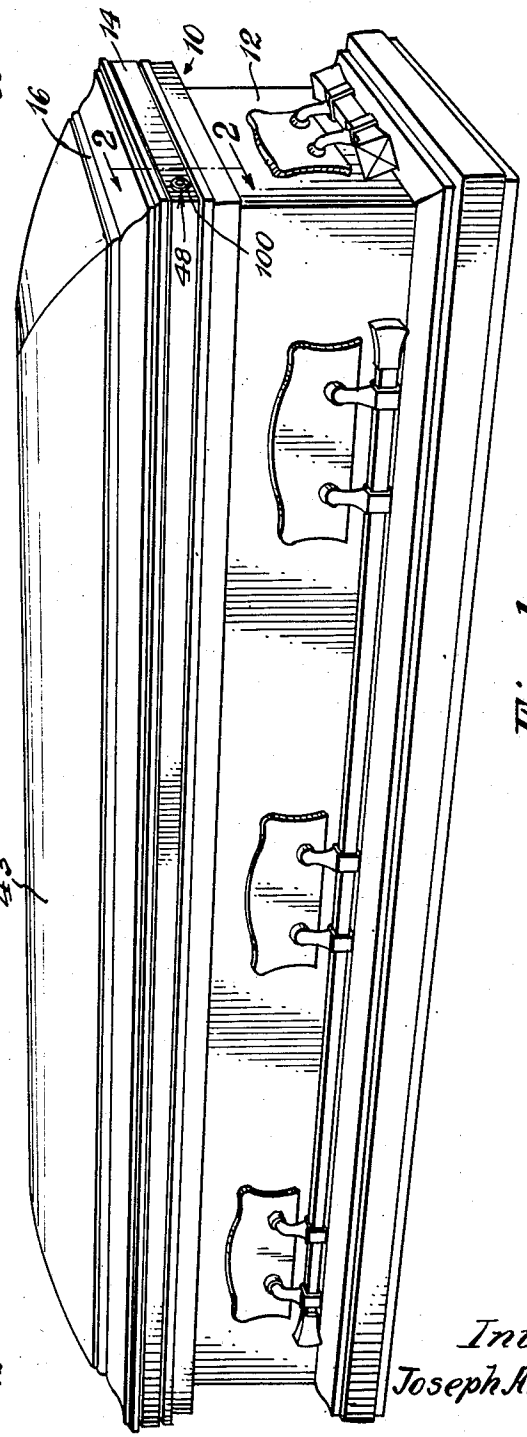


Fig. 1

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Fig. 3

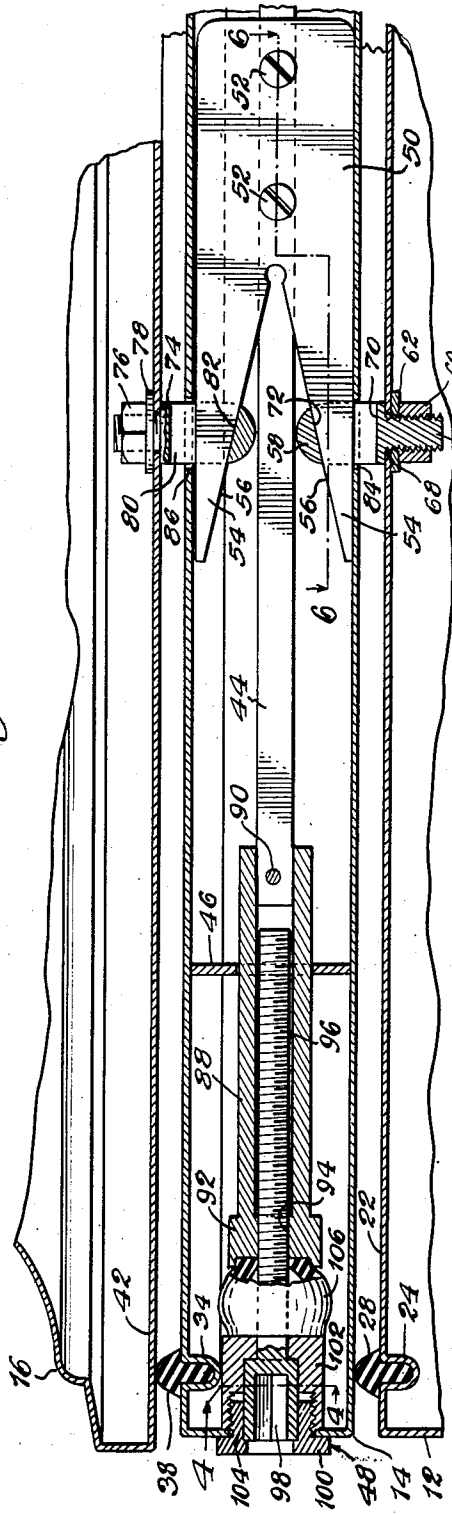


Fig. 6

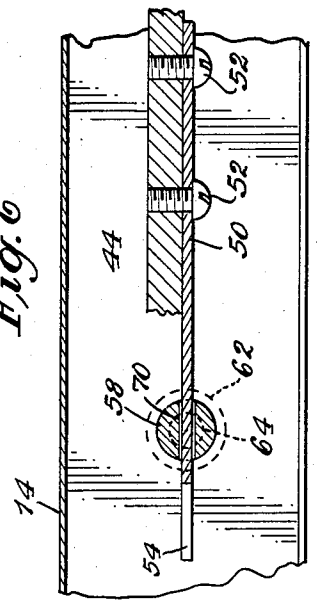


Fig. 5

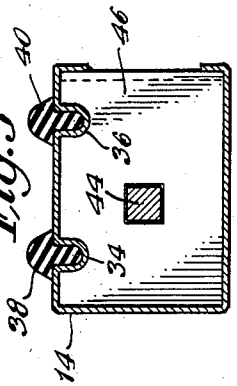
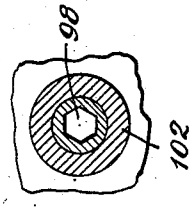


Fig. 4



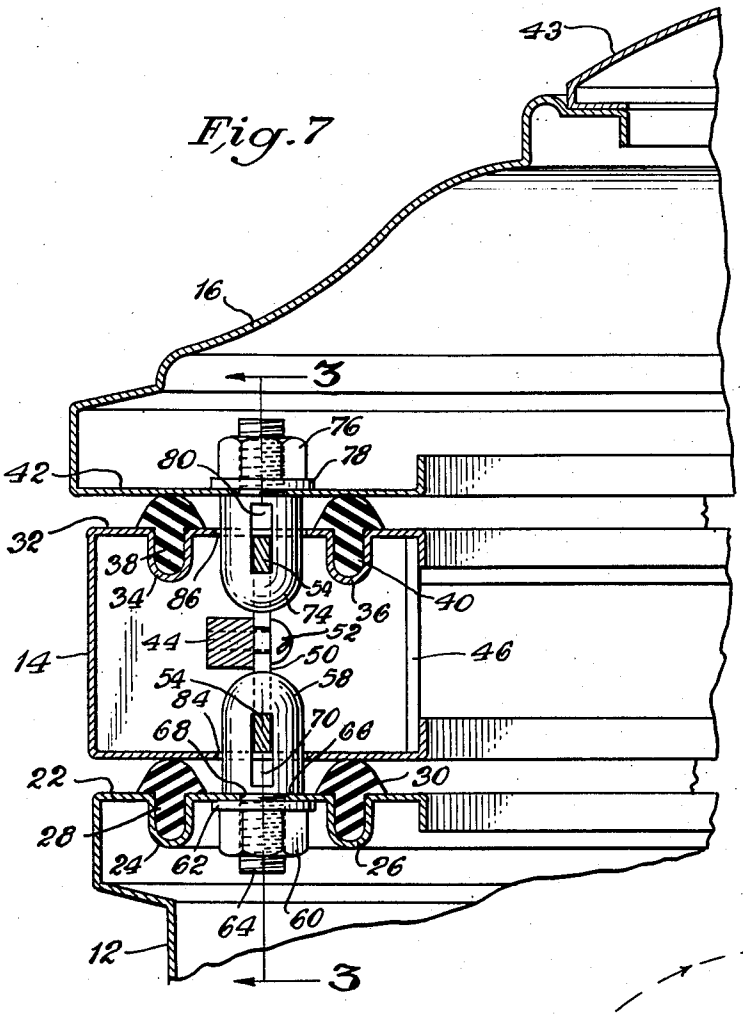
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Fig. 7



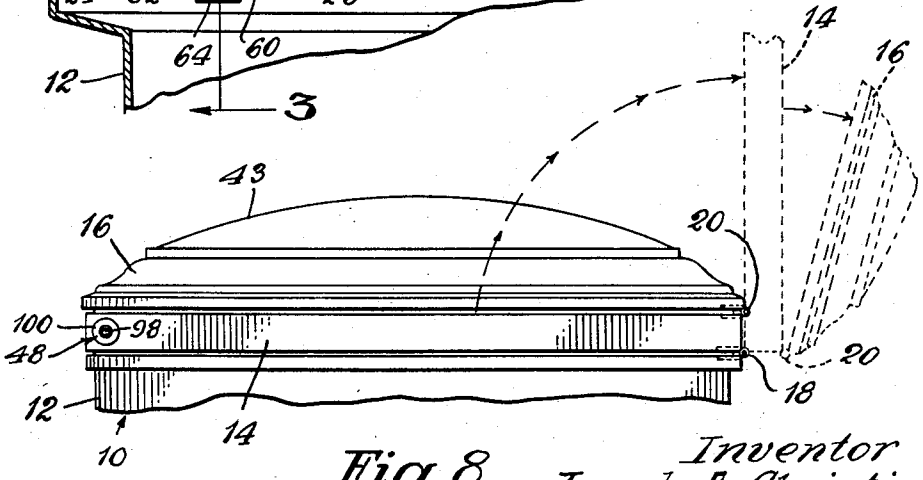


Fig. 8

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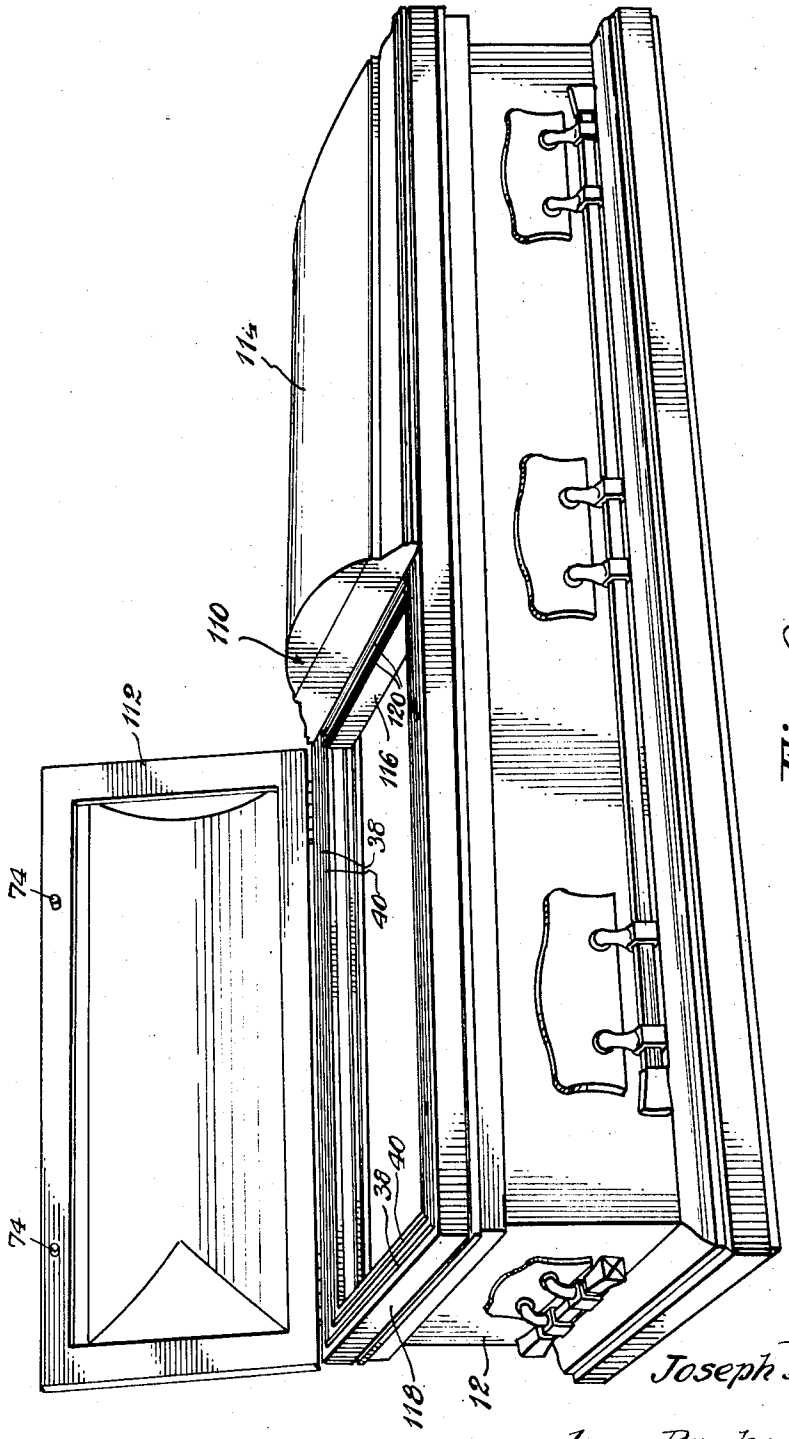


Fig. 9

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CASKET LOCK STRUCTURE

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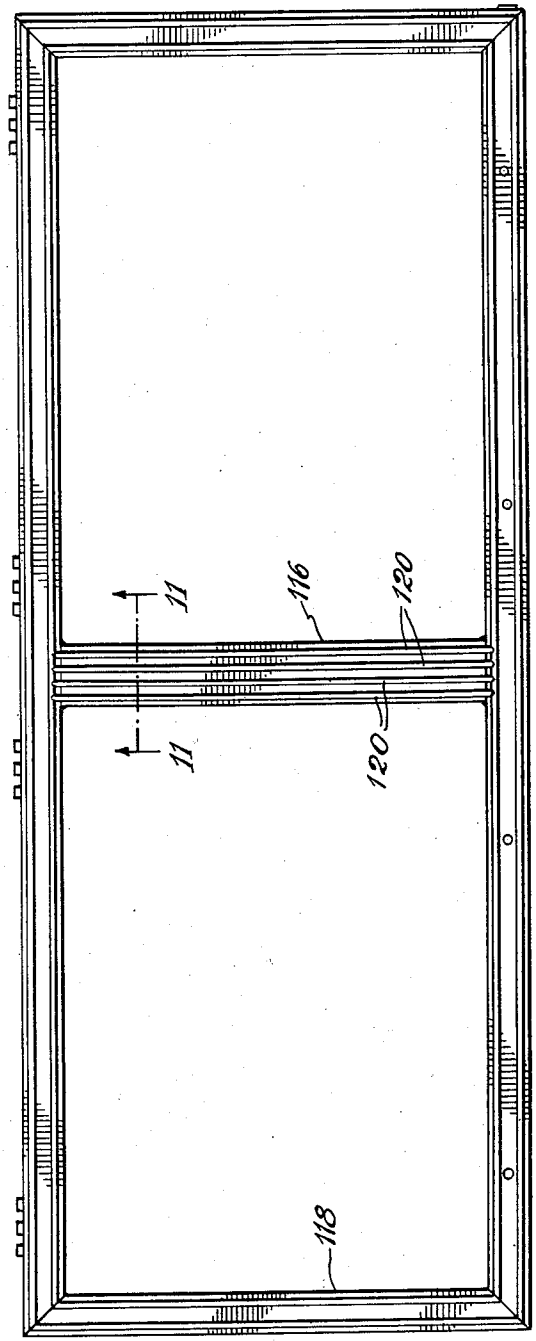


Fig 10

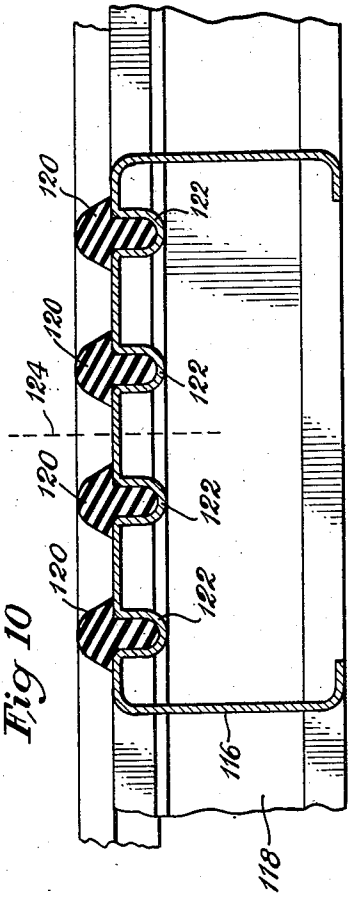


Fig. 11

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2,830,355

CASKET LOCK STRUCTURE

Joseph A. Christian, Chicago, Ill., assignor to The Merit Company, Chicago, Ill., a corporation of Illinois

Application September 8, 1954, Serial No. 454,751

3 Claims. (Cl. 27—17)

This invention resides in the field of caskets and is a new and improved casket structure with a more efficient and more easily manipulated lock structure.

A primary object of my invention is a new and improved casket structure which can be more easily manipulated during interment proceedings and at other times.

Another object of my invention is a casket structure of the above type which has a closing structure which is greatly reduced in weight.

Another object of my invention is a casket structure of the above type which is constructed with a main or first frame that can be standard or uniform for a large number of different styles of caskets.

Another object of my invention is a casket structure of the above type which can be constructed as either a full top or a half couch.

Another object of my invention is a lock structure for a casket which has 8 locks adapted to be actuated in unison by a single actuating mechanism to lock the entire structure.

Another object of my invention is a lock structure for a casket mechanism of the above type which can be manipulated so as to fasten together any number of the main component parts of the casket while leaving any other main parts unlocked.

Another object of my invention is a casket structure with an improved locking and sealing mechanism.

Other objects will appear from time to time in the ensuing specification and drawings in which:

Figure 1 is a perspective view of a typical casket structure embodying my invention;

Figure 2 is a sectional view, with a resilient annular ring omitted, of the lock mechanism taken along line 2—2 of Figure 1;

Figure 3 is a partial sectional view along line 3—3 Figure 7;

Figure 4 is a sectional view taken along lines 4—4 of Figure 3;

Figure 5 is a sectional view taken along line 5—5 of Figure 2;

Figure 6 is a sectional view taken along 6—6 of Figure 3;

Figure 7 is a sectional view with the locking mechanism in locked position, on an enlarged scale, taken along line 7—7 of Figure 2;

Figure 8 is a side view of the casket shown in Figure 1;

Figure 9 is a perspective view of a modified form of the invention;

Figure 10 is a top view of the casket mechanism shown in Figure 9 with the top panels removed; and

Figure 11 is a sectional view taken along lines 11—11 of Figure 10.

In Figure 1 my casket is indicated generally at 10 and is composed of a main frame or bottom housing or body element 12, and a cover element which includes a first frame 14 pivoted to the main frame, and a top frame 16 pivoted to the first frame. The pivotal connection between these three frame members can be made by any suitable number of conventional hinges, as at 18 and 20 in Figure 8, for example.

Considering first the important details of the main frame, in Figure 7 the upper open edge of the main frame is turned or flanged inwardly as at 22 around all four sides to provide a shelf or panel. This shelf has channels or grooves 24 and 26 pressed or stamped into it to receive gaskets 28 and 30. In cross section these gaskets are generally T-shaped and extend into and fill the channels. It will be understood that the channels and gaskets extend around all four sides of the casket in the panels and that the gasket can be secured by any suitable adhesive, glue or otherwise.

The first frame 14 is rectangular in cross section as shown in Figure 7 and is composed of four channel pieces mitered at the corners and suitably connected by welding, brazing, soldering or the like, so that an open-centered rectangular frame is acquired. The upper surface 32 is channeled or grooved as at 34 and 36 to receive gaskets 38 and 40 which are T-shaped in cross-section and suitably secured by a suitable adhesive, glue or the like. The gaskets extend around all four sides of the first frame in a manner similar to the gaskets 28 and 30 on the main frame.

The top frame, being pivoted to the first frame as at 20 in Figure 8, has an inwardly turned flange 42 in the form of panels which engage the gaskets on the first frame when the structure is closed. A panel 43, or the like, closes the top frame in a conventional manner and is welded or otherwise suitably secured in place.

A locking mechanism is provided for securing all three of the frames together in any selected combination, the locking structure being composed of a locking bar 44 slideable longitudinally along the inside of the outer channel member forming the first frame. It should be understood that the locking mechanism extends longitudinally along the front of the casket so that, while the hinges hold the rear edge, the locking mechanism will secure the front. The locking bar 44 is supported within the first frame channel by suitable bearing plates 46 and the bar is moved by an actuating mechanism 48 to be set forth in detail hereinbelow. At spaced intervals along the bar wedge plates 50 are secured by screws 52 or any other suitable securing element. Each of the wedge plates has forked prongs 54 which diverge from each other to present sloping or wedging surfaces 56.

Locking pins are mounted on both the main frame and the top frame and extend upwardly from the main frame and downwardly from the top frame. For example, pins 58 are mounted along the forward panel of the main frame and project upwardly between the parallel gaskets and are secured by a suitable nut 60 and washer 62 on a threaded stud 64 on the bottom of each pin, the pin being shouldered at 66 with the stud passing through an opening 68 in the panel 22.

Each of the pins has a slot or opening 70 which extends in a longitudinal direction generally parallel to the front edge, and the slot is adapted to receive one of the extensions or prongs on the wedge plate 50 carried by the locking bar. The top surface 72 of the slot 70 is formed on a diagonal so as to conform to the wedging surface 56 on the wedge prong 54.

A group of these pins 74 are also mounted in the panel 42 of the top frame by suitable nuts 76 and washers 78 and depend downwardly toward the first frame. Each of these pins is, in a similar manner, provided with a longitudinal opening 80 having a slanted lower surface 82 which coacts with the upper prong on the wedge plates.

The first frame is provided with openings 84 on its

lower surface generally opposed to the pins **58** and openings **86** along its upper surface opposed to the pins **74** on the top frame. These openings are adapted to receive the pins so that they can pass into the first frame when the casket is closed and upon movement of the locking bar from right to left in Figure 3, the wedge plates pass through the openings in the pins and secure the entire unit tightly closed.

The actuating mechanism for the locking bar includes an extension **88** connected to the locking bar at **90** in any suitable manner and having a block **92** at its other end with a threaded opening **94** which receives a threaded actuating rod **96**. The threaded rod **96** has a socketed end **98** which is rotatably connected to the side of the first frame by a coupling **100** composed of a female member **102** and a male member **104**. The male member has an opening so that the socket **98** is accessible from the outside.

A resilient annular ring of distortable material **106**, shown in Figure 3 but not in Figure 2, for clarity, is positioned around the threaded rod between the coupling and the block **92**, and any suitable type handle **108** can be inserted into the socket for rotating the threaded rod and therefore moving the locking bar in one direction or the other.

In Figure 9 I show a modified form of my invention in which the top frame is split or divided as at **110** providing two pivoted panels **112** and **114**, this form being known as a half couch. A crossbar **116**, shown in Figure 10, is positioned generally in the middle of the first frame **118** and carries four gaskets **120** secured in channels **122** formed in it. It should be observed that the cross bar is a channel member and is suitably secured to each side of the first frame by welding or otherwise. The top panels **112** and **114** have inwardly turned flanges on their lower edges extending around all four sides so that when the casket is completely closed the panels will engage the gaskets around the first frame as well as on the cross bar **116**. It should be understood that the panels engage two of the gaskets each and come together approximately along the line **124** in Figure 11.

In this species the locking mechanism including the locking bar with the wedge plates and pins projecting upwardly from the main frame and downwardly from the top frame are the same as in the species of Figures 1 through 8 and other than the differences noted above, the details can be considered generally the same.

The use, operation and function of my invention are as follows:

One of the primary disadvantages of present day caskets is the weight of the top. Users of caskets continually complain about the excessive weight they are confronted with when opening and closing a casket. By my invention this weight is split in two, so to speak, and instead of providing a main frame and a top cover, I provide a main frame with a pivoted first frame and a top frame pivoted on and closing the first frame. In use, the undertaker first pivots up the top frame, then he can easily raise the first frame. After the remains are installed, the first frame may be closed and locked if desired, while the top frame may remain open for the interment proceedings. The locking mechanism can then be released and the top frame brought down, at which time the locking mechanism can again be moved to locking position and the casket entirely secured.

This procedure is true of both the full top species shown in Figure 1 and the half couch shown in Figure 9.

In effect, I provide eight locks, four between the main frame and the first frame spaced along its forward edge and four between the first frame and the top frame spaced along the edge at the same interval. All eight of these locks are simultaneously actuated; however, the locking effect of any group or combination can be varied depending upon the desires of the user. For example, the top frame can be pivoted up after which the locking mechanism can be actuated so that the wedging elements will engage and lock the pins **58** projecting upwardly from the main frame. But the top wedging elements will not contact anything as the top frame is pivoted up and the first frame will be secured tightly to the main frame. By the same token, if the main frame is to be secured to both the first frame and the top frame, the top frame can be pivoted down and the locking mechanism unlocked. The pins of both the top frame and the main frame will project into the first frame and when the locking mechanism is again actuated, all eight locks will take effect and the three frames will be tightly secured together.

In the case of the half couch, shown in Figure 9 for interment, the head panel **112** can be pivoted upwardly to the position shown in this figure and the locking mechanism can be actuated to secure the main frame, the first frame and the foot panel **114** together. When the casket is to be entirely closed, the locking mechanism can be unlocked and the head panel **112** pivoted down to its closed position after which the locking mechanism will secure all four parts together.

It should be noted that the locking pins project between the parallel gaskets on the frames. When the compressive force is applied due to the wedging action, the sealing pressure will be applied uniformly and evenly and none of the casket elements will be shifted in one direction or another. Additionally, the locking bar actuating mechanism is sealed in an air and gas tight manner when the locking mechanism is locked due to the annular distortable ring **106** which closes any vents or openings through the locking mechanism.

By this structure, the first frame can be manufactured as a standard or uniform piece. To alter the basic casket design to the various designs that a manufacturer wants to put out, he need merely change the first frame and/or the top frame depending upon the design desired. But on all different designs, the main frame can remain unchanged. Assume, for example, that a casket manufacturer wants to put out 15 different designs or models of caskets. For these 15 he will have to tool up to produce 15 different frame structures including 15 different tops and 15 different bottoms. But with my structure, the main frame can be made the same for all 15 models and only the first frame and/or the top frame needs to be changed. This results in a tremendous cost saving to any casket manufacturer who is putting out a large number of different models. It should be noted that the main frame for both the full top and half couch, shown in Figures 1 and 9 for example, is identical and only the top frame is changed. Additionally, the locking mechanism employed is entirely in the first frame with only the pins in the other two frames. Thus, this locking mechanism can be standard for all different models that a casket manufacturer wants to make.

It should also be noted that this specific locking mechanism has a very tight locking action. The more the operator turns the handle, the tighter the various frames will be pulled together because the projecting pins will be pulled farther into the first frame by the wedge plates.

While I have shown and described the preferred form of my invention, it should be understood that numerous modifications, changes, substitutions, and alterations can be made without withdrawing from the invention's fundamental theme. I therefore wish that my invention be unrestricted except as by the appended claims.

I claim:

1. In a casket structure, a body portion, a first frame pivotally mounted thereon extending the full length of the body portion and being generally open throughout its full length, a top frame pivotally mounted on the first frame, and a lock structure in the forward edge portion of the first frame, including a locking bar slidable longitudinally within the first frame and extending the full

length of the first frame adapted to lock the body portion, the first frame and the top frame together, the lock structure further including a plurality of wedge elements spaced along the locking bar, openings in the first frame generally aligned with the wedge elements, a plurality of locking pins on the body portion and top frame adapted to extend into the first frame through the openings when the casket is closed, and means on the pins coacting with the wedge elements when the locking bar is moved longitudinally.

2. The structure of claim 1 further characterized in that each of the pins includes an opening disposed longitudinally, adapted to receive one of the wedge elements on the locking bar when the bar is moved longitudinally.

3. The structure of claim 1 further characterized by and including manually operable means projecting through one end of the first frame constructed, upon

manual actuation, to move the locking bar longitudinally in either direction.

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