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**T. D. MATTINSON**

**2,864,640**

### CASKET SEALER STRUCTURE

Filed April 19, 1956

4 Sheets-Sheet 1

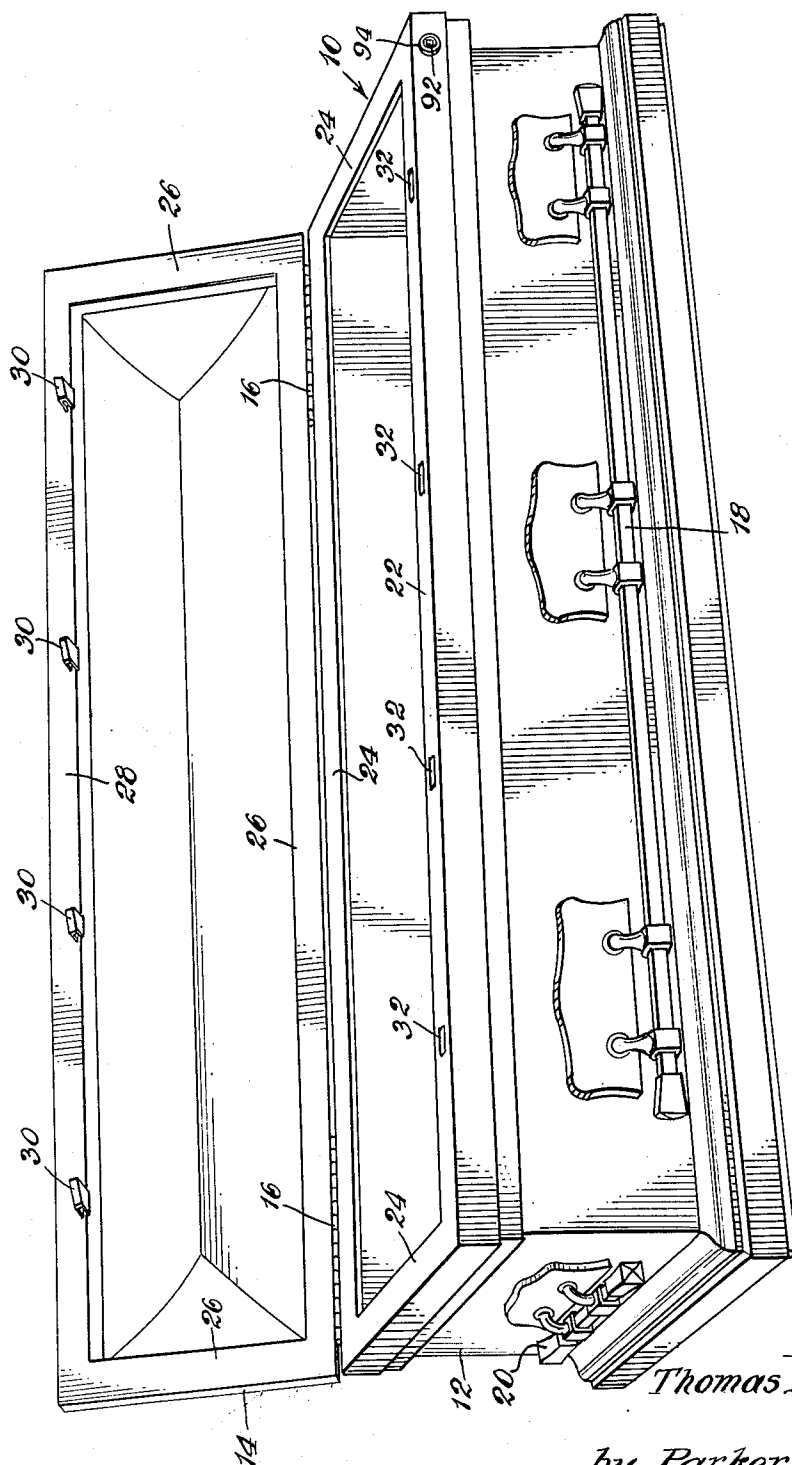


*Fig. 1*

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*Fig. 4*

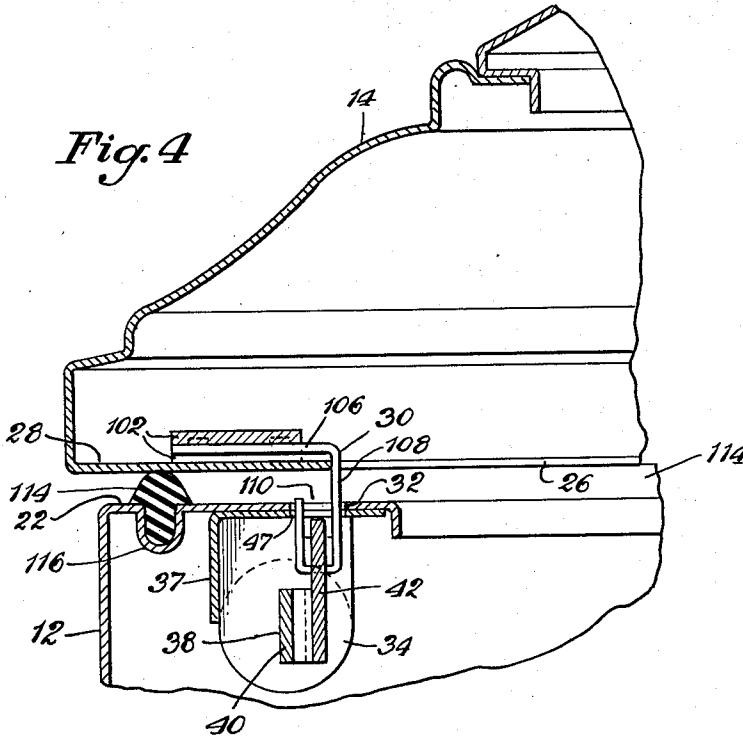


*Fig. 5*

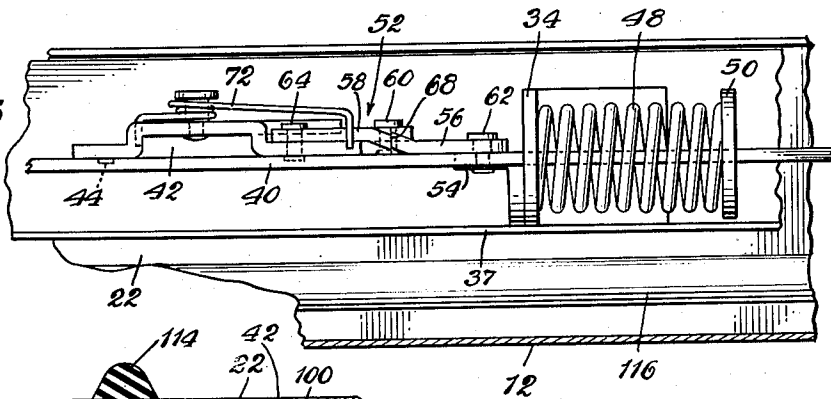
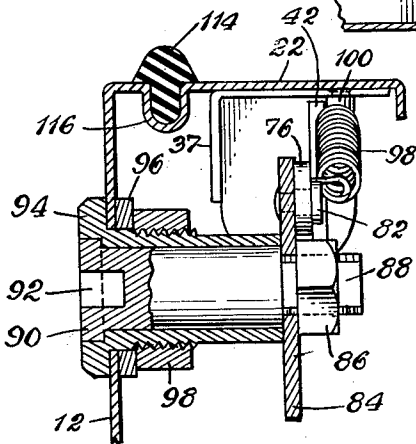


*Fig. 7*

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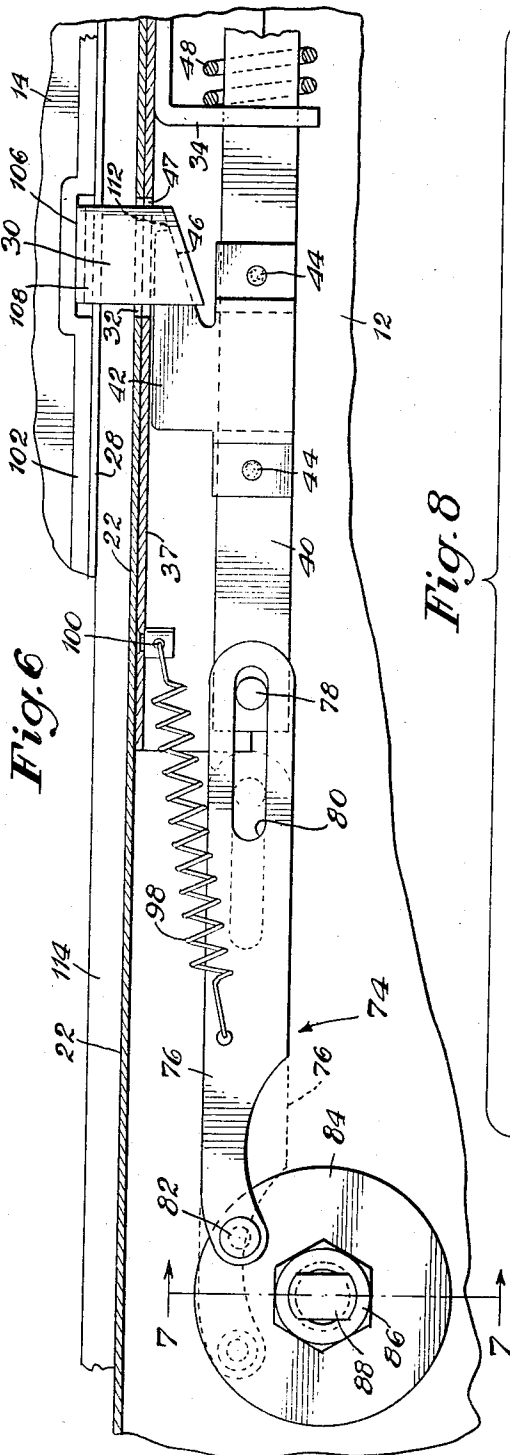


Fig. 6

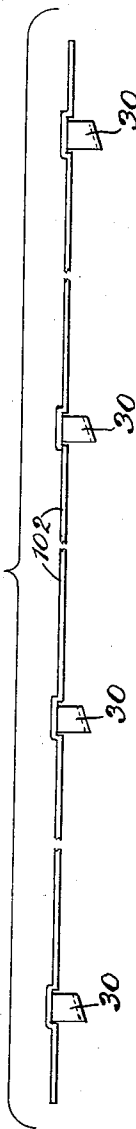


Fig. 8

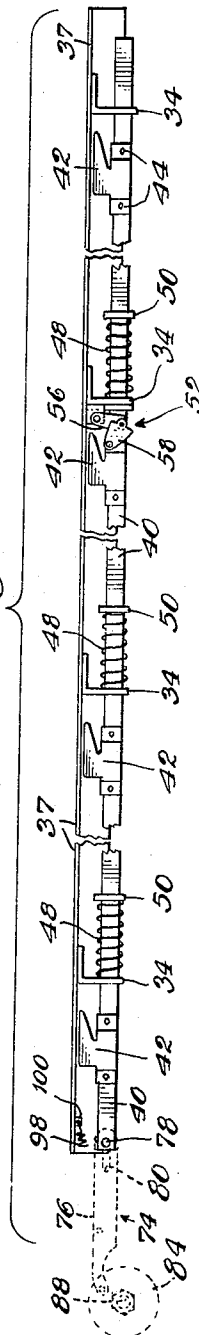


Fig. 9

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## CASKET SEALER STRUCTURE

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5 Claims. (Cl. 292—335)

The invention is in the field of caskets and the like and is in the nature of an improved type of casket lock structure which is simple to manufacture and reliable in operation.

A primary object of the invention is a casket with a lock structure which will automatically lock and seal the casket upon closing of the lid or cover.

Another object is a lock structure for a casket which can be easily manufactured.

Another object is a casket lock structure having a cocking mechanism and an over-centered trip mechanism actuated by the top or cover.

Another object is a lock structure for a casket or the like which is simple in structure, reliable in operation but at the same time rugged and dependable.

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

Figure 1 is a perspective of the new casket;

Figure 2 is a view, partly in section, taken from inside the casket showing the new lock structure;

Figure 3 is a view similar to Figure 2 showing the lock structure in a different position;

Figure 4 is a section taken along line 4—4 of Figure 3;

Figure 5 is a section taken along line 5—5 of Figure 2;

Figure 6 is a view partly in section, similar to Figure 3, showing the actuating mechanism;

Figure 7 is a section taken along line 7—7 of Figure 6;

Figure 8 is a plan view of the pulldown structure inserted or mounted in the top or cover; and

Figure 9 is an overall plan view of the lock structure similar to Figures 1, 2 and 6.

In Figure 1 a casket structure is indicated at 10 which includes a main frame or body portion 12 having a cover or lid or top 14 pivoted at 16 in a conventional manner. The main frame may have suitable side and end handles 18 and 20 respectively, if desired.

The main frame has marginal flanges or horizontal surfaces, the one at 22 being disposed along the outer edge and the others 24 extending around the periphery of the opening. The top or lid has corresponding marginal surfaces or the like 26 which conform in size and dimension to the flanges or surfaces on the main frame. The outermost marginal surface 28 on the top carries a series of pulldown elements or hooks 30 which are aligned with and adapted to enter a plurality of similarly aligned slots or openings 32 formed in the outer marginal surface of the main frame. A lock mechanism, shown generally in Figure 9 is disposed and properly mounted below the outer marginal surface 22 to engage the hooks or pulldown elements to lock the cover in place.

The details of the lock structure in the main frame are as follows:

In Figures 2 and 3 a plurality of guides or L-shaped supports 34 are welded or otherwise suitably secured at 36 to an elongated angle 37 which is welded or otherwise secured to the lower surface of the horizontal flange 22. The depending leg of each L-shaped bracket has a vertical slot 38, generally aligned with the other brackets, to

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accept a longitudinally movable locking bar 40 or the like. The locking bar carries a plurality of spaced hooks 42 which are welded or otherwise suitably secured thereto as at 44. Each hook has an inclined surface 46 adapted to engage and forcibly draw down the cover or top. Also, the angle 37 has suitable openings 47 corresponding to the openings 32.

I provide a plurality of coiled springs or the like 48 each of which may abut an L-shaped mounting bracket 32 at one end and a washer or the like 50 at the other. Each washer 50 may be welded, crimped or otherwise secured on the locking bar to function as a firm stop for its spring. In Figure 9 I have shown three such springs and more or less, of a selected strength, could be used.

I provide a latch mechanism 52 adjacent a selected one of the openings 32, and only one latch mechanism is necessary, although more than one can be used, if desired. This latch mechanism includes a mounting bracket 54 welded or otherwise secured to either or both the lower surface of the marginal flange and the support or guide bracket for the locking bar. A pair of links 56 and 58 pivoted to each other at 60 and also pivoted between the bracket 54 and the locking bar, at 62 and 64 respectively, are provided and disposed below an opening 32. The upper surface of the link 58 is formed at 66 to be engaged by the pulldown element 30 entering the opening 32 to pivot the links to the position of Figure 3 allowing the locking bar to move to the right in Figure 3 freely under the influence of the springs 48. Figure 2 represents the locked or latched position of the links which is derived by providing opposed offset abutting surfaces 68 on the links which come together when the common pivot or center 60 is raised about a line 70 between the pivots 62 and 64. This will be recognized as an over-centered linkage. The springs tend to bias the locking bar and the end of the linkage at the pivot 64 to the right. This tends to raise or pivot the links upwardly, but the abutting surfaces 68 prevent movement. Upon lowering the lid or cover, the hook or pulldown element entering the opening 32 forces the common pivot of the links downwardly below center and the links will freely pivot allowing the locking bar to move to its locked position. To overcome gravity I provide a suitable spring 72, which may be either a leaf spring or a coil spring, to pivot the links upwardly over center.

I provide a cocking mechanism 74 in Figure 6 which includes a link 76 connected at one end to the locking bar 40 by a lost motion connection including a pin 78 on the bar 40 and an elongated slot 80 on the link 76. At its other end the link is connected by a pivot 82 to a crank mechanism which includes a plate 84 held by a nut 86 or the like on a square shank 88 or the like on a center plug 90 shown in Figure 7. This rotary plug projects through the wall of the main frame and has a suitable socket 92 for a suitable handle. The rotary plug is carried by a suitable boss 94 which is secured in place by a washer 96 held by a threaded collar 98 or the like. The plug is adapted to be rotated in the bushing or boss to rotate the plate 84. A suitable spring 98, connected at one end 100 to the angle 37, is adapted to pull the link 76 to the right in Figure 6 for a reason to be set forth herein below.

The pulldown structure in the lid or cover includes a bar 102 which has a plurality of hooklike elements 30 welded or otherwise secured to it. Each element has a leg 106 which extends above the outer marginal flange; and a hook 108 which drops around the inner edge of the flange. Each hook may have an open side at 110 and an inclined surface 112 opposed to and adapted to cooperate with the inclined surface 46 on the wedge elements of the locking bar.

I may provide a suitable sealing mechanism including

appropriate gaskets 114 disposed in suitable channels 116 around the marginal surfaces to provide an effective seal although I have only indicated this structure broadly.

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

I provide a casket structure with an automatic lock mechanism. A plurality of hooks depend from the outer marginal surface of the cover. The hooks can be assembled on a bar and merely slipped in under the marginal surface, and thereafter welded in position. Holes do not have to be cut in the marginal surface to allow the hooks to extend through.

A locking bar mechanism is slidably supported and positioned below the outer marginal flange in the main frame and is aligned with a plurality of slots or openings which allow the hooks in the cover to extend through into locking association with wedge elements on the locking bar.

The locking bar is biased toward its locking position by a plurality of coiled springs or the like which are suitably disposed to force the locking bar, when freed by a latch mechanism, to its locked position. The springs provide the locking thrust.

The latch mechanism in Figure 2 is held in its overcentered position by a suitable spring. The "overcenter" latch is opposite one opening in the main frame's marginal surface. Thus when the cover is closed and is pushed down firmly, the overcenter latch will be forced overcenter. This frees the locking bar and it is quickly snapped into its locked position with each wedge element 42 engaging a pulldown element or hook.

To open the casket a handle inserted into the rotary plug is rotated counterclockwise in Figure 6 to bring the connecting link 76 to the broken line position shown in that Figure. The end of the slot 80 picks up the pin 78 and the locking bar is pulled back to its unlatched position. The latch mechanism 52 straightens out and the spring pushes the links over center. When the handle is released the surfaces 68 abut holding the locking bar in its cocked position. The spring 98 returns the connecting link 76 to its original or full line position in Figure 6. This spring is relatively weak so that the handle returns slowly and does not strike and injure the operator. When the latch mechanism is again tripped by closing the top, the pin 78 on the locking bar will merely move from the left end to the right end of the slot 80 and the violent thrust of the locking springs will not be transmitted to the cocking mechanism. This prevents undue wear and possible damage. Furthermore, a handle may have been left in the socket 92 which could cause injury to any nearby personnel because the movement of the bar by its springs is quite violent. This of course is to ensure that the top or cover will be pulled down firmly. In other words, the springs 48 must be quite strong.

It can therefore be seen that I provide a simple but reliable locking mechanism which is adapted to automatically snap shut or lock when the operator closes the casket cover. Nevertheless it can be recocked very simply and the cover can be easily raised. Once the cover is closed, the locking bar does not have to be manually moved to the locked position. Furthermore, a firm pulldown of the lid or cover is ensured because the springs 48 do all of the work. No operator error is possible. The operator merely relocks the locking bar to open the lid. No error can creep into this operation. The overcenter latch either catches, allowing the cover to be raised, or it does not pass over center, in which case the cover cannot be raised.

By my casket-locking structure human error in closing and sealing the casket is virtually entirely eliminated.

While I have shown and described the preferred form of my invention, many modifications, changes, substitutions and alterations should be obvious and considered in the appended claims. For example, the overcenter latch may be positioned adjacent any one of the openings

in the marginal flange. Any one of the pulldown hooks in the cover or lid, four being shown in Figure 1, can be used to knock the latch over center. I prefer to provide the latch mechanism adjacent the head end of the coffin but this is not absolutely necessary. Any suitable number of openings, hooks and wedge elements can be used. With these and other modifications in mind, I accordingly request that my invention be unrestricted except as by the appended claims.

I claim:

1. In a closure structure having a main body type frame and a closing cover pivoted thereto with a plurality of pull down elements projecting from the cover and aligned with the frame, the improvement comprising a locking mechanism in the frame having a longitudinally slidable locking bar carrying a plurality of locking elements adapted to coact with the pull down elements so as to lock the cover to the frame, a locking spring mechanism adapted to bias the locking bar at all times toward its locked position, a latch mechanism connected to the locking bar for holding the locking bar in a cocked position, with energy stored in the locking spring mechanism, manually operable means connected to the locking bar for moving the bar to its cocked position to store energy in the locking spring mechanism, means associated with the cover for tripping the latch mechanism automatically when the cover is closed so that the locking spring mechanism may move the locking bar to its locked position when the cover is closed, a lost motion connection between the manually operable means and the locking bar constructed so that when the locking bar moves under influence of the locking spring, the manually operable means may remain stationary, and a spring connected to the manually operable means biasing it toward the uncocked position of the locking bar.

2. The structure of claim 1 wherein the latch mechanism is connected both to the frame and to the locking bar and is positioned so as to be contacted and tripped by a pull down element when the cover is closed.

3. The structure of claim 2 in which the latch mechanism includes an over center linkage composed of at least two links pivoted to each other, one being pivoted to the frame and the other to the locking bar, a spring adapted to push the linkage over center in one direction when the locking bar is moved to its cocked position by the manually operable means, and an abutment for limiting the distance the over center linkage can be moved by its spring in the said one direction over center, the linkage being so disposed as to be moved over center in the other direction when engaged by the pull down element during closing movement of the cover.

4. The structure of claim 1 in which each pull down element includes a projecting pin with a longitudinally disposed open sided slot, each locking element on the locking bar including a wedge element adapted to enter the longitudinal slot in its corresponding hold down element when the cover is closed and the locking bar is moved to its locking position by the locking spring.

5. The structure of claim 1 in which the pull down elements are mounted on a bar which is disposed longitudinally inside the cover, each pull down element having a strap connected to the bar and extending inwardly therefrom, and a hook shaped portion depending from the strap.

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