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2,778,089

CLOSING AND LOCKING DEVICES FOR CASKETS

Filed July 30, 1953

2 Sheets-Sheet 1

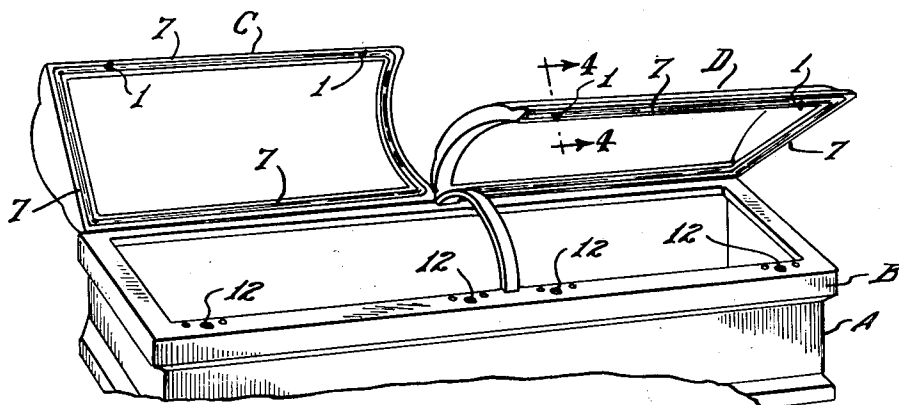


FIG. 1.

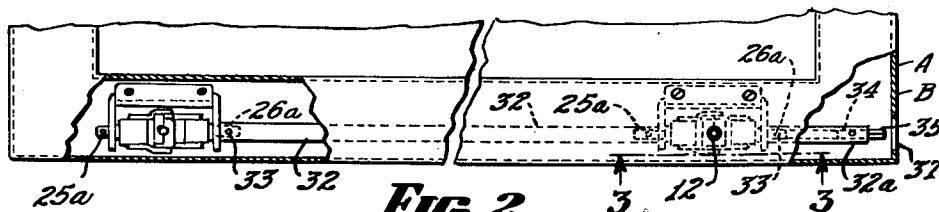


FIG. 2.

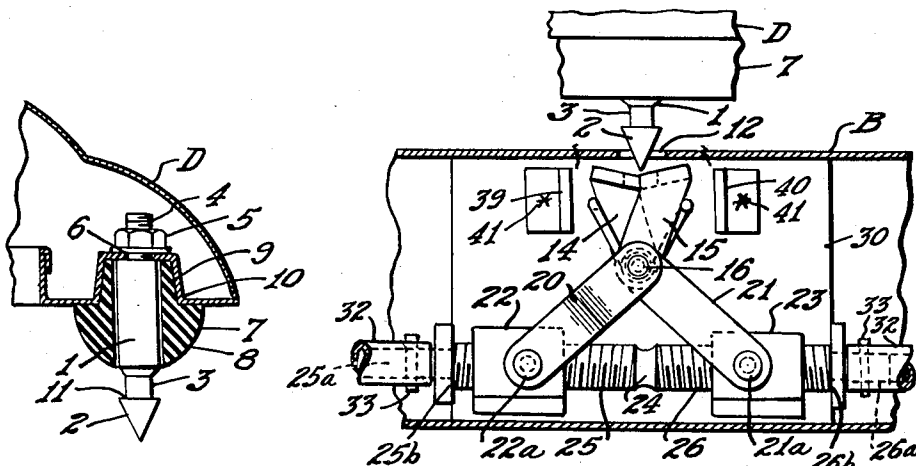


FIG. 3.

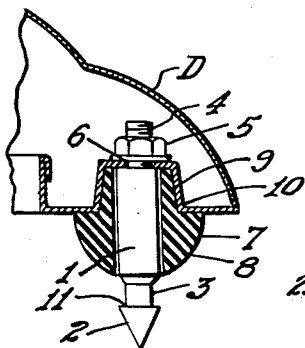


FIG. 4.

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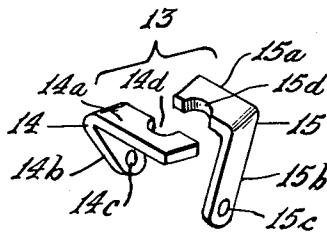


FIG. 11.

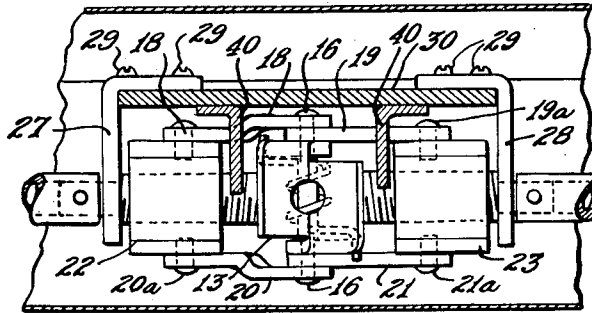


FIG. 10.

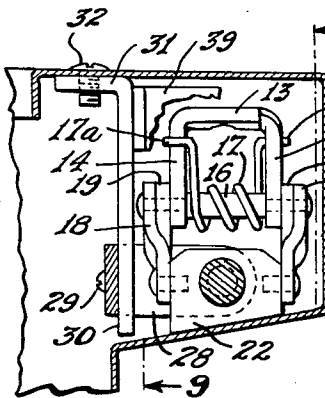


FIG. 8.

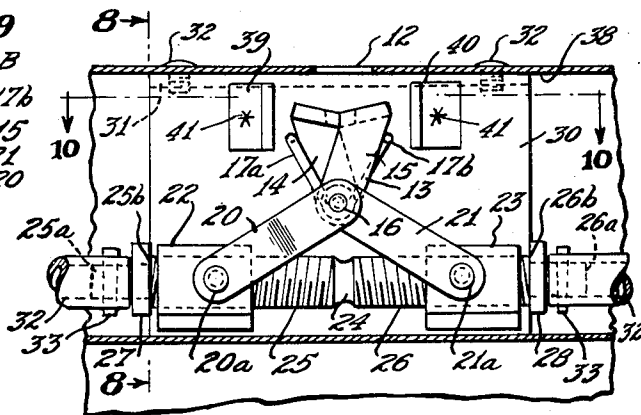


FIG. 9.

FIG. 5.

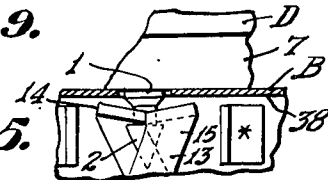
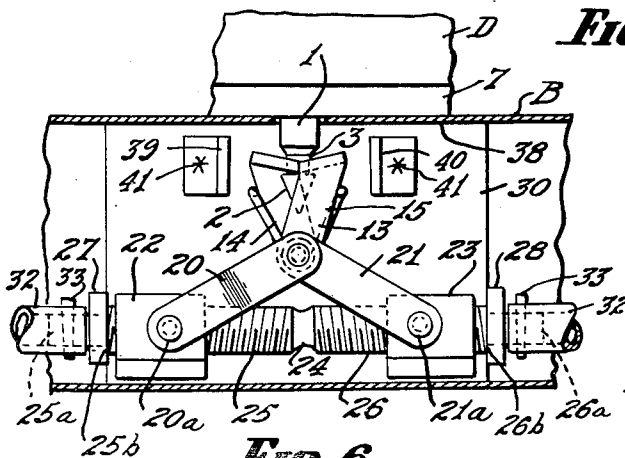


FIG. 6.

FIG. 7.

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CLOSING AND LOCKING DEVICES FOR CASKETS

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Application July 30, 1953, Serial No. 371,380

6 Claims. (Cl. 27-17)

This invention relates to devices for closing and locking caskets. More particularly the invention resides in the provision of an improved closing and locking device which is especially advantageous for use with caskets of the type wherein resilient gaskets or sealing strips are employed between the main body portion of the casket and the movable top closure for purpose of hermetically sealing the casket.

In the operation of closing and locking a casket which has been provided with resilient sealing means, it will be quite obvious that upon initial closure of the movable top member the resilient gasket, and especially that portion of the gasket which extends across the hinged side of the casket, will be partially compressed. Thus the compressed resilient sealing means acts as a compressed spring urging the top closure to rise to a slightly open position. This tendency of the top closure to rise after initial closing requires that the top be manually held in initially closed position, with the resilient gasket somewhat compressed, until a holding means can be engaged, a procedure which requires more than one attendant and is highly objectionable. As far as I am aware, various previous locking devices have failed to overcome this objection.

It is an object of this invention to provide an improved closing device comprising headed studs affixed in the movable top closure and spring pressed latches mounted in the main body portion of the casket whereby upon initial closure of the top and partial compression of the sealing means, the top member will be immediately and automatically latched and restrained from rising, thus obviating the necessity of manually holding the top down.

Another object of the invention is to so arrange the parts that after the top member is latched in the aforesaid initially closed position the latch members may be retracted or drawn downwardly with great force, as by use of a toggle mechanism, to thus also draw the top closure firmly and securely to a final closed position tightly compressing the sealing means.

A further object is to so arrange the mechanism that the retractable latches and their appurtenances are concealed within the casket.

Still another object is to so arrange the mechanism that the latches are equally retracted in unison so that pressure upon the sealing gasket is equally distributed.

Another object is to so arrange the parts that, if desired, the latches may be released to permit opening of the casket.

Other objects and advantages of the invention will be more fully apparent from the description of the drawings wherein:

Figure 1 is a perspective view showing a casket of the cut top type which has been provided with resilient sealing means and also embodies the improved closing and locking device which is the subject matter of this ap-

plication, the movable sections of the top being shown in raised positions.

Figure 2 is a fragmentary enlarged plan view of the main body portion of the casket, parts being broken away and parts omitted to facilitate description.

Figure 3 is a fragmentary vertical sectional view taken along line 3-3 of Figure 2 and showing a latch member mounted on a toggle mechanism and suitably in position to receive and engage a headed stud carried in the top member, a fragment of the cover member and a stud being shown in position just prior to engagement with the latch.

Figure 4 is an enlarged fragmentary sectional view taken along the line 4-4 of Figure 1 and showing in detail one of the headed studs and a resilient sealing member.

Figure 5 is a view similar to Figure 3 but showing the latch and stud in engaged position as occurs with initial closing of the top and partial compression of the sealing gasket.

Figure 6 shows the position of the parts after the top has been pulled down to finally closed and locked position, the sealing gasket being fully compressed.

Figure 7 shows a position of the parts whereby the latch is released from engagement with a stud to permit opening of the casket.

Figure 8 is a vertical sectional view taken along line 8-8 of Figure 9 and showing details of the latch and of the toggle arrangement.

Figure 9 is a sectional view taken along the line 9-9 of Figure 8.

Figure 10 is a horizontal sectional view taken along line 10-10 of Figure 9, and

Figure 11 is a perspective view showing a pair of the latch jaws detached from assembly.

The structure and arrangement of the resilient sealing means herein shown in the drawings is fully disclosed and claimed in Patent No. 2,585,363, issued February 12, 1952, and entitled Hermetically Sealed Burial Casket, reference being had to that patent. However, it is to be understood that other sealing arrangements may be readily substituted since the novel closing and locking mechanisms will be applicable to other types of casket construction.

Briefly in the preferred embodiment of my invention as herein disclosed, I provide the movable cover sections of the casket and which close in a horizontal plane with headed studs which, in the initial closing of the movable members, are arranged to extend through perforations in the main body portion or shell of the casket whereupon the studs become engaged by spring pressed latches. In this initially closed position the resilient sealing means will be partially compressed tending to urge the movable members upward, but any such movement will be prevented by virtue of the latched engagement of the studs. Associated with each of the latch members is a toggle device comprised of suitable links connected to oppositely traveling nuts which nuts are operably engaged by threaded screws. The screws serve to actuate the toggle devices and thus retract the latches pulling the studs and the movable top members to final closed position wherein the sealing strips are tightly compressed and the parts are securely held in position.

Referring to Figure 1, the main body portion or shell of a casket is indicated at A. An enlarged upper portion of the shell, indicated at B, is called the rail and it is within this enlarged portion that I have mounted the retractable latches of my improved device. Movable cover members C and D are affixed by hinges (not shown) as well known in the art. It is to be understood that while, for exemplary purposes, I have shown

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a casket having two cover sections, my invention is readily applicable to caskets having a single cover member or various other constructions. As here shown, however, the cover members C and D are each provided with studs generally indicated at 1. Referring briefly to Figure 4, each of the studs 1 has a conical lower end 2 and a grooved or shouldered portion 3. It will be understood that the studs may be affixed to the cover members in various manners without departing from the spirit of my invention, but for that purpose I have herein provided the stud with a shouldered and threaded end 4, a nut 5 being employed to secure the stud within a perforation 6 in the cover members.

As herein shown, each of the cover members is provided with a resilient sealing strip or gasket 7. As shown in Figure 4 the gasket 7 has a lower semi-circular portion 8, and an upper tapered or ribbed portion 9 by which the gasket is adhered or otherwise affixed within a channel 10 formed in the cover member. The gasket will preferably be perforated where necessary to accommodate the studs 1.

The upper surface of the rail B has a plurality of perforations 12 suitably positioned to permit passage therethrough of the various studs 1. As the cover members are initially closed the heads 2 of the studs pass through the perforations 12 whereafter each of the studs engages a spring pressed latch positioned beneath the perforation 12. The spring pressed latch devices are generally indicated at 13 throughout the drawings and Figures 8, 9, 10 and 11 are now especially referred to for detailed description of the constructions and arrangement of the latches and also for detailed description of a toggle mechanism for retracting the latches and of an actuating means therefor.

As best seen in Figure 11, each of the spring pressed latches comprises a pair of jaws 14 and 15 preferably formed as shown of flat strip metal or of a suitable casting having inwardly bent upper portions 14a and 15a and downwardly extending arms 14b and 15b respectively provided with perforations 14c and 15c for purpose of pivotally affixing the jaws to a shouldered pin 16 as will later be more fully described. The inturned portions 14a and 15a of the jaws have semi-circular cut out portions respectively indicated at 14d and 15d which, in the closed position of the latch, engage the shoulder 11 formed by the head 2 of the stud 1.

As best seen in Figure 8 the shouldered pin 16 provides pivoted mounting for the latch jaws 14 and 15 and a spring 17 is also carried on the pin. The spring 17 is coiled about the pin as shown and has upwardly and outwardly disposed ends 17a and 17b, which engage and urge the latch jaws to closed position. As shown, the pin 16 is also pivotally affixed to a pair of toggle links 18 and 19 near its one end and to another pair of toggle links 20 and 21 near the other end of the pin. The lower ends of the links 18 and 20 are respectively and pivotally mounted on suitable pins or studs 18a and 20a fixed in a travelling nut 22. Likewise the lower ends of the links 19 and 21 are pivotally attached by pins 19a and 21a to a nut 23.

The nuts 22 and 23 are arranged for travel in opposite directions and for that purpose they are fitted on a screw 24 having oppositely threaded portions 25 and 26 at right and left hand threaded portions. At the outer ends of the threaded portions 25 and 26 the screw is reduced in diameter as at 25a and 26a thus providing shoulders 25b and 26b which respectively abut supporting brackets 27 and 28 to restrict axial movement of the screw, the brackets 27 and 28 also serving as journaled bearings respectively fitted to the reduced end portions 25a and 26a of the screw.

The brackets 27 and 28 are affixed as by welding or by screws 29 (Figure 10) to a main supporting plate 30 having an inturned upper bent portion 31 by means

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of which the plate is attached within the upper surface of the rail B, screws 32 being employed as herein shown.

As best seen in Figures 9 and 2, the reduced diameters or ends 25a and 26a of the screw 24 may be joined to tubular members such as indicated at 32, 32 by means of pins 33, 33 or other suitable means. Thus any desired number of the toggle mechanisms may be coupled together to be actuated in unison. To this end the tubular member 32a (Fig. 2) is provided with a plug 34 having a squared end 35 suitable for receiving a socket wrench (not shown), a perforation 37 being provided in the casket structure to permit access to the squared end 35. It will be obvious that if desired the perforation 37 may be readily obscured by use of a decorative plug or other means.

As before mentioned, Figure 3 shows the position of parts just prior to engagement of the stud with the latch 13. As the cover member moves further downward to the horizontal plane position of Figure 5, the gasket will be somewhat compressed and the shoulder 11 adjacent the head 2 of the stud becomes engaged by the latch jaws, the spring 17 permitting the jaws to open during passage of the head 2 of the stud. This is the position of initial closure of the casket and it will be apparent that the latched engagement of parts prevents the cover from rising. Figure 6 shows the position of final closure where the latch 13 has been retracted by rotation of the screw 24 thus drawing the stud 1 and the cover member to final closed position with the gasket 7 fully compressed.

It will be observed that the hermetic sealing gasket forms a closed chamber within the casket. All the operating mechanism for latching and sealing the covers functions outside the closed chamber with none of the actuating mechanism extending through it. This prevents the necessity of sealing off the actuating parts of the closing and locking devices, and greatly simplifies the construction.

In the event it is desired to open the casket the direction of rotation of the screw (or screws) 24 may be reversed, thus each of the latch members will be moved upwardly to the position of Figure 7, the abutment of the inturned portions 14a and 15a of the latch jaws against the under surface 38 of the rail causing the jaws to separate and become disengaged from the studs 1 to permit opening of the casket cover.

In the arrangement shown the latch assemblies comprising the jaws 14, 15 and the spring 17 pivoted on the pin 16 will, by action of gravity, tend to tilt to either side of the position shown. To prevent undue tilting and maintain the latches in operative relation with the studs 1, I have shown guide members comprising bent plates 39 and 40 affixed to the plate 30 as by spot welding 41, 41. Other means for retaining the latches in operative relation may readily be devised without departing from the scope of my invention, but I have found that the guide plates as just described are highly satisfactory.

While I have illustrated and described a preferred embodiment of my invention, various modifications will occur to those skilled in the art and it is to be understood that I do not desire to be limited to the precise details of construction as set forth, but by such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a casket, a shaft journaled in the main body portion of the casket and having oppositely threaded portions, nuts arranged for opposite axial movement on said oppositely threaded portions of said shaft, one nut being on one threaded portion and another nut being on the oppositely threaded portion toggle links pivotally connected to said oppositely traveling nuts one link being connected to one nut and another link to the other nut, an opposed spring pressed latches pivotally affixed to the

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toggle links and a headed stud mounted in the casket cover for engagement with said latches.

2. In a casket having a main body portion and a movable cover member; a shaft journaled in the main body portion and having oppositely threaded screws, nuts arranged for opposite axial travel upon said screws, one nut on one screw and the other on an oppositely threaded screw and each nut having a pivot pin, a pair of toggle links each engaging at its lower end one of said pivot pins, the links having at their upper ends a common pivotal connection, a pair of spring pressed latch jaws carried on said common pivotal connection of the toggle links, and a headed stud fixed in the movable cover member and adapted for engagement with said latch jaws.

3. In combination in a casket having a body portion and a hinged lid which closes in a horizontal plane and which has a resilient gasket seated between the body and lid, closing and locking mechanism comprising a series of downwardly extending studs having pointed lower ends and upwardly and outwardly flaring sides terminating in enlarged upper rims, latching members arranged in apertures in the body walls to engage the enlarged upper rims of the studs, a shaft extending lengthwise in the body walls, right and left threads on said shaft and nuts engaging said threads and connected to said latching members to grip and pull down on said studs to draw said cover member down tight and compress said resilient gasket to render said casket hermetically sealed.

4. In combination in a casket having a main body member and a hinged cover member which closes in a horizontal plane and which has a compressible gasket interposed between the main body member and the hinged cover member, a closing and locking device comprising

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a series of studs carried in one of the members and having pointed ends and outwardly flared sides terminating in shoulders, a mating series of spring pressed latch devices carried in the other said member and adapted to engage said shouldered studs upon initial closing of the casket, and means for retracting said spring pressed latches after they become engaged with said shouldered studs, to thus draw said cover member and said body member tightly together compressing said compressible gasket to render said casket hermetically sealed.

5. A device as defined in claim 4 wherein said means for retracting said spring pressed latch devices comprises a journaled shaft having right and left hand threaded portions fitted with oppositely traveling pairs of nuts, each pair of said oppositely traveling nuts having pivoted links comprising a toggle mechanism mounting one of the said spring pressed latch devices.

6. A device as defined in claim 5 wherein said spring pressed latch devices comprise a pair of latch jaws pivotally affixed to the common juncture of said toggle mechanism and a spring urging said pair of latch jaws to closed position.

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