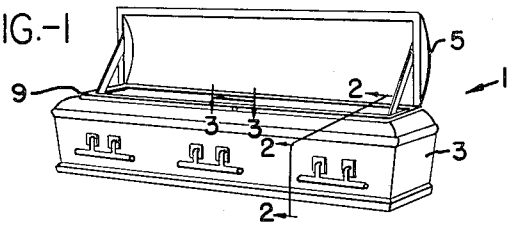
Jan. 3, 1956 E. F. HARTER 2,728,971

CASKET SEALING AND LOCKING DEVICE

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FIG.-1



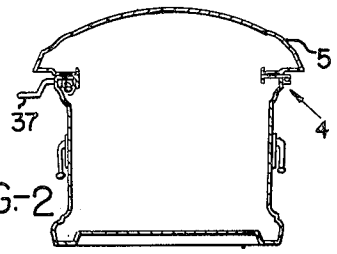
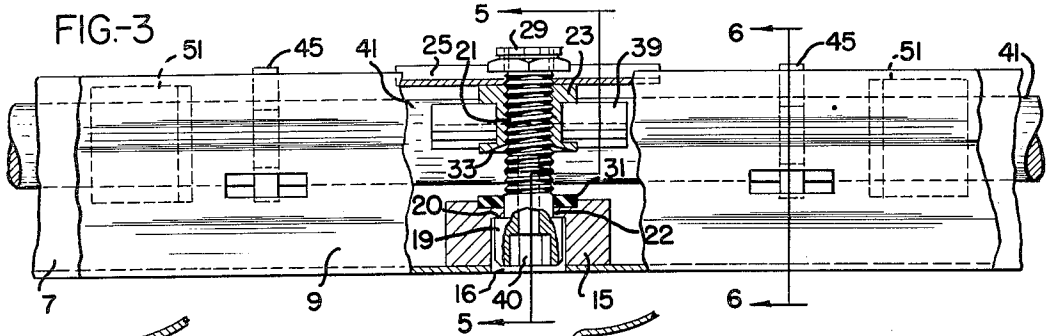


FIG.-2

FIG.-3



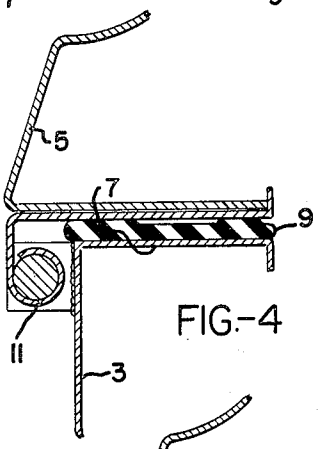


FIG.-4

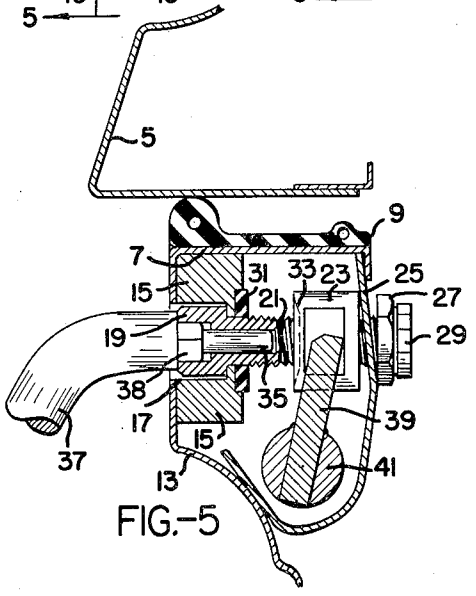


FIG.-5

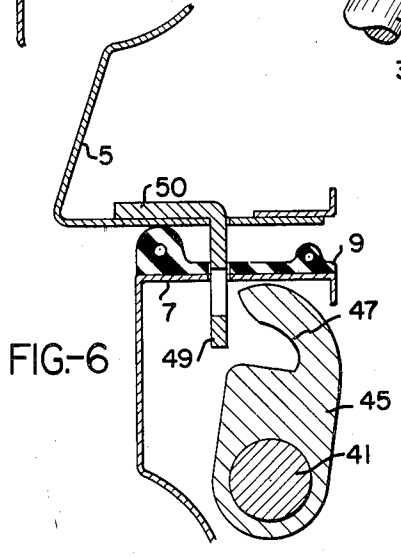


FIG.-6

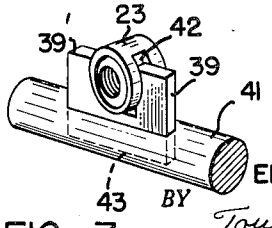


FIG.-7

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CASKET SEALING AND LOCKING DEVICE

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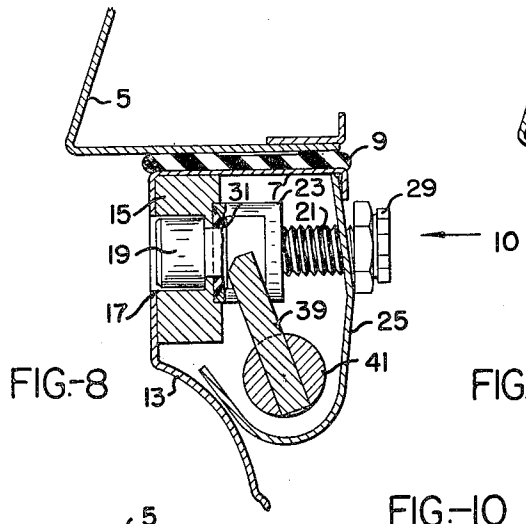


FIG.-8

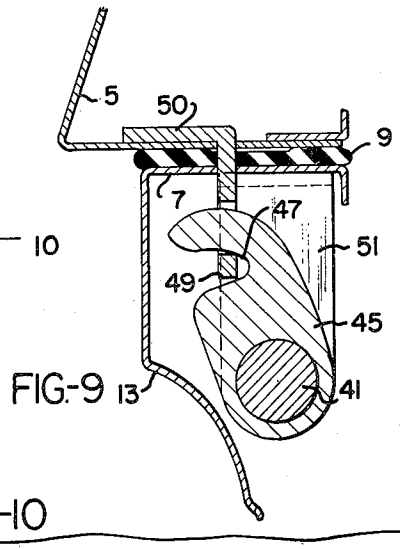
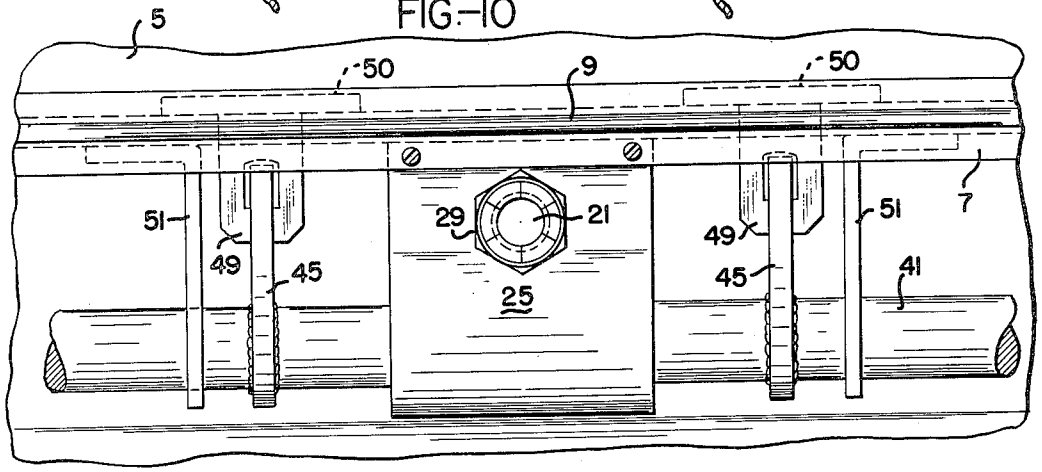


FIG.-9

FIG.-10



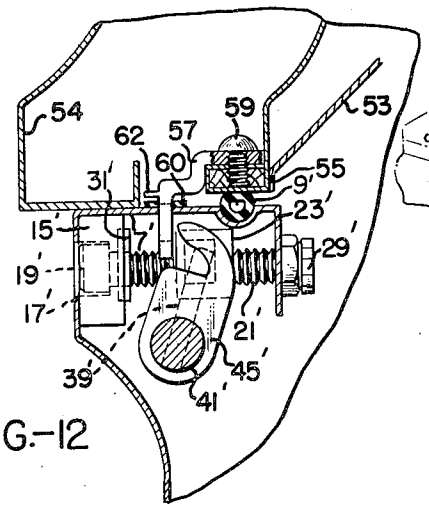


FIG.-12

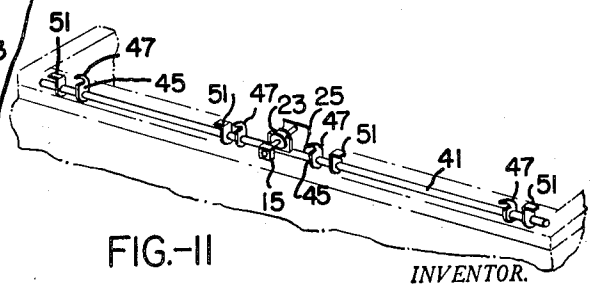


FIG.-11

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CASKET SEALING AND LOCKING DEVICE

Edgar Fay Harter, Springfield, Ohio, assignor to The Springfield Metallic Casket Co., Inc., Springfield, Ohio, a corporation of Ohio

Application March 18, 1955, Serial No. 495,168

9 Claims. (Cl. 27—17)

My present invention relates to improvements in casket latching and sealing mechanisms.

The invention particularly contemplates the provision of means for effectively securing the lid of the casket upon the body in air tight relation and which means are operable conveniently by a director of a funeral service from a single point along the forward wall of the casket.

The invention further contemplates the provision of novel locking and sealing mechanisms which can be manufactured on a production basis at a reasonable cost.

The invention will be more fully understood by reference to the following detailed description and accompanying drawings wherein the invention is illustrated in connection with a full couch casket.

In the drawings:

Fig. 1 is a perspective view of a full couch casket embodying the improved mechanisms of this invention;

Fig. 2 is a sectional view on line 2—2 of Fig. 1;

Fig. 3 is an enlarged view taken on line 3—3 of Fig. 1 illustrating in detail the principal components of the mechanism of this invention;

Fig. 4 is a sectional view taken through the back wall of the casket illustrating the hinge and seal arrangement for the rear wall;

Fig. 5 is an enlarged view partially in section taken on line 5—5 of Fig. 3 and illustrating the locking mechanism in the unlocked position;

Fig. 6 is a sectional view taken on line 6—6 of Fig. 3 illustrating the latching mechanism in unlatched position;

Fig. 7 is a perspective view of a portion of the structure of Fig. 5;

Fig. 8 is a sectional view similar to Fig. 5 but illustrating the mechanism in locked position;

Fig. 9 is a sectional view similar to that of Fig. 6 but illustrating the latching mechanism in the latched position;

Fig. 10 is an enlarged elevational view of the latching and locking mechanism taken from the inward side of the casket;

Fig. 11 is a perspective view with a portion of the front wall of the casket removed illustrating the general arrangement of the locking mechanism arranged for actuation from a central point on the forward wall of the casket; and

Fig. 12 is a view partially in section illustrating an arrangement of a further embodiment of the invention.

Referring to the drawings there is indicated generally at 1 in Fig. 1 a full couch casket having a body 3 and a lid 5 which is adapted to be closed on and sealed to the body. Although the casket illustrated is of the full couch type it will be understood that the invention described will apply also to a casket of the half couch type.

The body 3 comprises on the upper side thereof (Figs. 3–6 inclusive) an inwardly extending peripheral rim 7; a gasket 9 secured on the rim extends entirely around the casket and is adapted to receive the lid 5 thereon for sealing the interior of the casket from the entry of air,

water and other materials which tend to leak into the casket body.

Referring now to Fig. 4, the rear of the body 3 of the casket is arranged to support hinges such as indicated at 11 and in the closed position of the lid 5 the gasket 9 is compressed and effectively seals the rear of the casket body.

The mechanism carried on the forward wall of the casket and illustrated in the unlocked position in Figs. 3, 5 and 6 insures that the lid 5 may be brought into locked sealing engagement with the gasket 9 on the body. This locking and sealing mechanism comprises a vertical portion 13 (Fig. 5) of the casket forward wall; secured interiorly to this wall portion 13 beneath the rim 7 is a bored screw holder block 15. A lock-opening 16 (Fig. 3) through the wall portion 13 communicates with the bore in the screw holder block.

The bore of the block 15 comprises a first recess 17 which receives therein the rounded head 19 of a socket-head or cap screw; the head 19 abuts the seat 20 formed by recess 17 and entry of the screw into the casket is restricted.

The threaded shank 21 of the screw passes through the bore beyond the block interiorly of the casket and closely and rotatably engages the sides of restricted passage 22 of the bore of the block. The shank carries a traveling locking nut 23 which is movable between the block 15 and a trough-shaped sheet metal support bracket 25 secured by a weld to the rim 7 and resiliently engaging the inner side of the wall portion 13; if desired the lower trough-shaped end of bracket 25 may be welded to wall portion 13. The shank 21 passes rotatably through an aperture of bracket 25 and the threaded shank end receives a retaining washer 27 which is itself held positioned against the support bracket by nut 29. Thus the screw is rotatably mounted but fixed against rectilineal movement.

The screw holder block 15 is recessed on its inner face to provide a shoulder around the block bore; impervious washer 31 seats in the recess snugly engaging the shoulder thereof in the unlocked position of the mechanism. The resilient washer 31 and the recess are larger than the passage 22 and the washer is of greater thickness than the recess and hence protrudes from the inner face of block 15 (Figures 3 and 5). Further the washer closely surrounds the shank 21 of the fixed screw. The washer is suitably of rubber or other similar material and pressure on the washer causes the washer to securely engage about the screw shank to seal the interior of the casket from the passage of air through lock-opening 16 and the bore of the mechanism.

The traveling locking nut 23 is generally cylindrical and of a size to pass into the shouldered recess against the washer 31 when the screw is rotated to locking position. The washer then in the locked position is adapted to exert a resilient pressure against the nut and to also seal the bore. Most suitably the traveling locking nut 23 is recessed on the face which engages the washer 31 to provide a conical bearing surface for the washer; this enhances the action which causes the washer 31 to securely engage the shank for the washer is urged against the shank and this effectively aids in the sealing of the bore and lock-opening 16 by the washer.

The shank 21 is itself partially bored out inwardly of screw head 19 as indicated at 35 (Fig. 5) and the shank receives the long cylindrical end of a handle 37 which at 38 is hexagonally shaped for engagement in the hexagonally shaped recess 40 of head 19. Turning of handle 37 rotates the cap screw and occasions rectilineal movement of traveling nut 23; the long cylindrical end portion

of handle 37 insures of firm engagement of the handle in the screw.

The locking nut 23 is restrained from rotational movement with the screw by its connection with the pull-down or latching mechanism of the casket which mechanism functions to securely position and retain the casket lid on gasket 9.

The generally cylindrical locking nut 23 is slotted as at 42 (Fig. 7) on opposed sides to receive the upper ends of fingers 39. These fingers are secured in rock-shaft 41 which extends longitudinally of the front wall of the casket below the locking and sealing mechanism; the fingers may be individually mounted or as is shown in Fig. 7 the fingers may be carried on a plate 43 retained as by a weld in rock-shaft 41. In either event the fingers 39 engage in the slots 42 to permit movement of the fingers rectilineally with the locking nut 23; however the fingers are in substantially abutting relation with the nut 23 laterally (Figs. 5 and 7). This arrangement locks the fingers and the shaft 41 against movement longitudinally of the casket wall and at the same time any tendency of the nut 23 to rotate with the screw is inhibited.

It is apparent from the foregoing that operation of handle 37 effects rotation of rock-shaft 41.

The shaft 41 fixedly carries suitably spaced thereon latch plates 45 (Fig. 6) each of which are provided with a horn 47. The horns 47 are arcuate in form and are adapted to engage in openings of keepers 49 (Fig. 10) when the lid is simply closed upon gasket 9. The keepers 49 have angled portions 50 which are passed through openings in the lid and are secured to the lid. As shown most clearly in Figs. 6 and 9 the horn 47 is shaped to pass through the opening in the keeper 49 and to exert a camming action on the keeper to thereby tightly draw the lid down on the gasket 9. Thus movement of handle 37 will cause nut 23 to move against fingers 39 to rotate the same; this action rocks the shaft 41 toward the forward wall of the casket to effect engagement of the latch plates with the keepers when the lid is down.

As indicated in Fig. 11 four latch plates are sufficient for the usual casket and all may be actuated simultaneously from a position centrally of the casket.

The rock-shaft 41 is supported by hangers 51 which depend from and are secured to the rim 7. Suitably one hanger is provided adjacent each latch plate and the shaft 41 terminates at each end short of the extreme end of the forward wall. Most conveniently the support hangers are angled brackets of a heavy gauge metal bored to receive the shaft 41 snugly therethrough. The shaft 41 turns readily in such hangers and the expense and weight of elaborate bearings is avoided.

When the cap screw is rotated to close the casket in sealing engagement with the gasket 9 the latch plates move in planes perpendicular to the forward wall of the casket and bear downwardly on the latch members or keepers carried by the lid. At the same time the traveling nut 23 is resiliently engaged against the washer 31, which deforms slightly under the pressure, and this resilient contact permits secure drawing of the lid into engagement with the peripheral gasket 9.

A further embodiment of the inventive structure is illustrated in Figure 12 for use in connection with caskets having an inner seal. The rim or ledge 7' in this instance is shown as depressed to receive a gasket 9'; the locking and sealing mechanism except for the inner seal arrangement and the support of the keeper are similar to that already described and accordingly the same numerals, but primed, have been used for corresponding parts.

An inner frame 53 is adapted in the arrangement of Figure 12 to be closed upon the casket body prior to the closing of an outer lid 54. This inner frame carries a support structure 55 for the keeper 57 and the keeper is secured to structure 55 by screw 59. The keeper passes through an opening in the rim 7' to be engaged by the latch plate 45'. A resilient gasket 60 surrounding the keeper seals the interior of the casket from the passage of air past the keeper; a cape 62 may be provided to exert pressure on the gasket 60 in the closed position. Otherwise the inventive structural arrangement is substantially identical to that described in connection with Figures 1 to 11.

It is to be noted that applicant has provided a structural arrangement which permits locking and sealing of the casket in one easy motion; it is further to be noted that substantially the whole structure to effect this locking and sealing occupies very little space and is substantially wholly within the confines of the peripheral rim 7.

It will be understood that this invention is susceptible to modification in order to adopt it to different usages and conditions and accordingly it is desired to comprehend such modifications within this invention as may fall within the scope of the appended claims.

What I claim is:

1. In a casket, latching and closing mechanism supported within the body of the casket along a forward wall thereof for closing the lid of the casket into sealed contact with the body, said mechanism comprising a plurality of first latching members adapted to cooperate with pull-down latching members on the casket lid, a rock-shaft carrying the first latching members and rockable to actuate said members simultaneously, said rock-shaft extending along the forward wall within the casket body, a rotatably mounted threaded element supported within the body, fixed against rectilineal movement, and extending transversely to the said forward wall and to the rock-shaft, a nut threadedly engaging the element and movable rectilineally therealong upon rotation of the threaded element, and means secured to the rock-shaft operably connecting the rock-shaft to the nut for rockable movement of the rock-shaft upon rectilineal movement of the nut.

2. In a casket, latching and closing mechanism supported within the body of the casket along a forward wall thereof for pulling the lid of the casket into closed sealed contact with the body, said mechanism comprising a plurality of first vertically extending latching members adapted to cooperate with latching members on the casket lid, a rock-shaft carrying the first latching members and rockable to actuate said members simultaneously, said rock-shaft extending along the forward wall within the casket body and terminating between the ends thereof, a rotatably mounted threaded element supported within the body, fixed against rectilineal movement, and extending transversely to the said forward wall and to the rock-shaft in spaced vertical relation with the rock-shaft, a nut threadedly engaging the threaded element and movable rectilineally therealong upon rotation of the threaded element, and means secured to the rock-shaft operably connecting the rock-shaft to the nut for rockable movement of the rock-shaft upon rectilineal movement of the nut, said means comprising fingers extending from the rock-shaft and closely engaging the nut in either side thereof.

3. A locking and sealing mechanism mounted within a casket body for latching the lid of the casket into sealed contact with the body comprising a series of latching members adapted to cooperate with latching members on the lid, said first latching members having a shaft interconnecting the same and said members each being movable in a plane toward the forward wall of the casket to effect latching, a headed screw, a screw holder block secured to the casket forward wall, said headed screw being rotatably mounted through said block and having a shank extending interiorly of the casket transversely to the forward wall and said shaft and in spaced vertical relation with the shaft, a traveling nut on the shank operably connected to the shaft, a resilient, impervious washer between the block and nut, carried by the block and closely surrounding the shank of the screw, said washer being compressible by the nut on movement of the nut and shaft toward the forward wall of the casket.

4. In combination with a casket, casket lock-opening

sealing mechanism comprising a bored block secured at the casket lock opening and the bore of which block communicates with the lock-opening, the block having a recess providing a shoulder around the bore and another recess providing a seat around the bore adjacent the lock-opening, a headed screw fixed against rectilineal movement passing rotatably through said bore beyond the block interiorly of the casket and having the head thereof abutting said seat and the shank thereof threaded and surrounded by said shoulder, a traveling nut on said shank movable into substantial abutment with said block at said shoulder upon rotation of said screw, and a resilient impervious washer on said shoulder surrounding said shank closely and compressible between said shoulder and nut to seal said bore and said lock opening.

5. In combination with a casket, casket lock-opening sealing mechanism comprising a bored block secured to the casket around the lock-opening and the bore of which block communicates with the lock-opening, the block having a first recess providing a seat around the bore and a second opposed recess providing a shoulder around the bore, a headed screw fixed against rectilineal movement passing rotatably through the bore beyond the block interiorly of the casket and having the screw head abutting said seat, said screw having the shank thereof threaded and surrounded by said shoulder, a traveling nut on said shank and movable rectilineally upon rotation of said screw into substantial abutment with said block at said shoulder, a resilient impervious washer on said shoulder closely surrounding said shank and in contact therewith, said washer extending beyond said block toward said nut, said nut having the face thereof toward said washer recessed, and said washer being deformable between said recessed face of said nut and said shoulder to seal said bore and lock-opening.

6. In combination, in apparatus sealing a lock opening in a casket wall, the mechanism comprising a rotatably mounted headed screw, screw retaining means retaining the screw against rectilineal movement and comprising a bored block secured to the casket at the lock opening and the bore of which block communicates with said lock opening, said bore including a first recess forming a seat in the block, a second opposed recess forming a shoulder in the block and a bore passage portion connecting the recesses, the fixed screw having a head thereof engaged against said seat and a shank thereof extending through said bore beyond said block interiorly of the casket, said shank being threaded, a traveling nut on said shank and movable rectilineally upon rotation of said fixed screw into substantial abutment with said block at said second recess, and a resilient impervious washer on said shoulder in said second recess closely surrounding said shank and compressible between said nut and block against said shank to seal said bore and lock opening.

7. In combination with a casket having a lock-opening in a forward wall thereof, a bored block supported by the wall at the lock-opening and having the bore thereof communicable with the opening, a headed screw passing rotatably through the bore of the block and retained by the block against rectilineal movement inwardly of the casket, the screw having a threaded shank thereof extending interiorly of the casket beyond the block, a traveling nut on the shank movable into substantial abutment with the block upon screw rotation, a rock-shaft in vertical relation with the screw extending transversely thereto and along the forward wall of the casket, latch members carried by the rock-shaft and movable in unison with the shaft toward the forward wall to latching position, means harnessing the rockshaft to the traveling nut for rocking of the shaft upon movement of the nut, and a resilient impervious washer closely surrounding the screw shank, positioned between the nut and block, supported by the block and adapted to be resiliently compressed into sealing engagement against the shank and block by the nut in the moving of the rock-shaft to latching position.

8. In combination with a casket having a lock-opening in a forward wall thereof and also having a rim extending from the wall inwardly of the casket body, a bored block supported by the wall at the lock-opening beneath the rim and having the bore thereof communicable with the opening, a headed screw passing rotatably through the bore of the block and retained by the block against rectilineal movement inwardly of the casket, the screw having a threaded shank thereof extending interiorly of the casket beyond the block, a traveling nut on the shank movable into substantial abutment with the block upon screw rotation, a plurality of hangers depending from the rim and spaced along the forward wall, a rock-shaft in vertical relation with the headed screw extending transversely thereto and supported by the hangers along the forward wall of the casket, said shaft terminating between the ends of the wall, latch members carried by the rock-shaft and movable in unison with the shaft toward the forward wall to latching position, means harnessing the rock-shaft to the traveling nut for rocking of the shaft upon movement of the nut, said harnessing means engaging the nut laterally and inhibiting movement of the rock-shaft along the forward wall with respect to the nut, and a resilient impervious washer, closely surrounding the screw shank, positioned between the nut and block supported by the block and adapted to be resiliently compressed sealably against the shank and block by the nut in the moving of the rock-shaft to latching position.

9. In locking and sealing mechanism, a block having a bore therethrough, said bore including a first recess providing a seat, a headed screw passing rotatably through said bore and having the head thereof abutting said seat, said screw being fixed against rectilineal movement, a nut threaded on said screw and movable rectilineally along the screw shank upon rotation of the screw, said nut being cylindrical and having a substantially circular face towards said block, said block having a second recess defining a shoulder around said bore and into which recess said nut is movable, and a resilient impervious washer on said shoulder and in contact with said shank therearound, said face of said nut being recessed to provide a conical seat, and said washer being deformable by said conical seat and nut into sealing engagement with said shank.

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