May 2, 1950 B. J. SLAUGHTER, JR., ET AL 2,506,553

CASKET LATCH

Filed Sept. 6, 1946 2 Sheets-Sheet 1

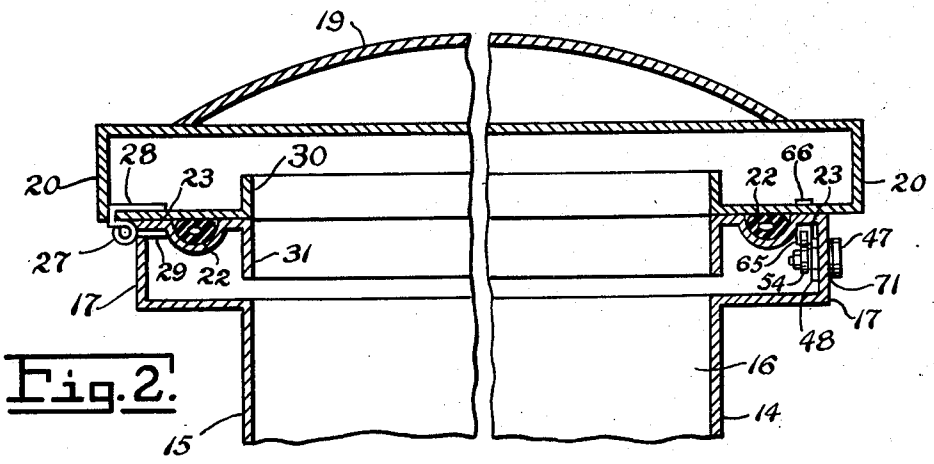


Fig. 2.

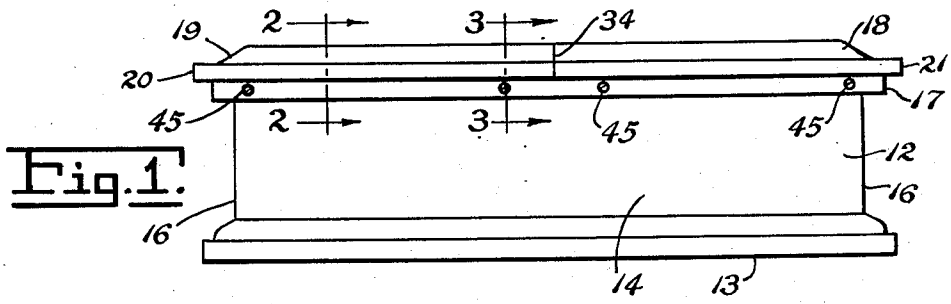


Fig. 1.

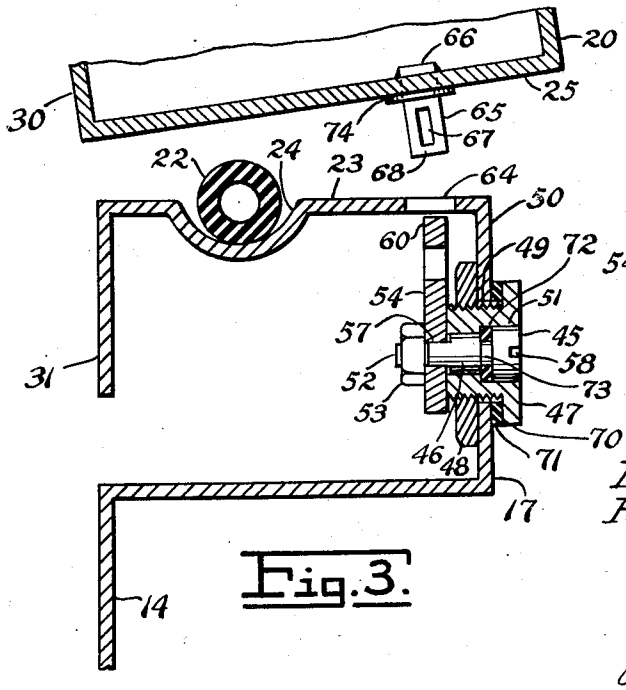


Fig. 3.

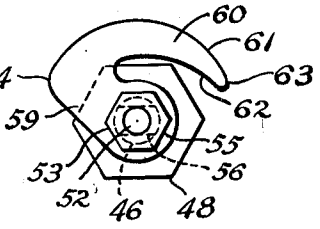


Fig. 4.

Bernard J. Slaughter, Jr.
Raymond W. Brown
INVENTORS.

BY Zugelter & Zugelter
Attys.

May 2, 1950 B. J. SLAUGHTER, JR., ET AL 2,506,553

CASKET LATCH

Filed Sept. 6, 1946 2 Sheets-Sheet 2

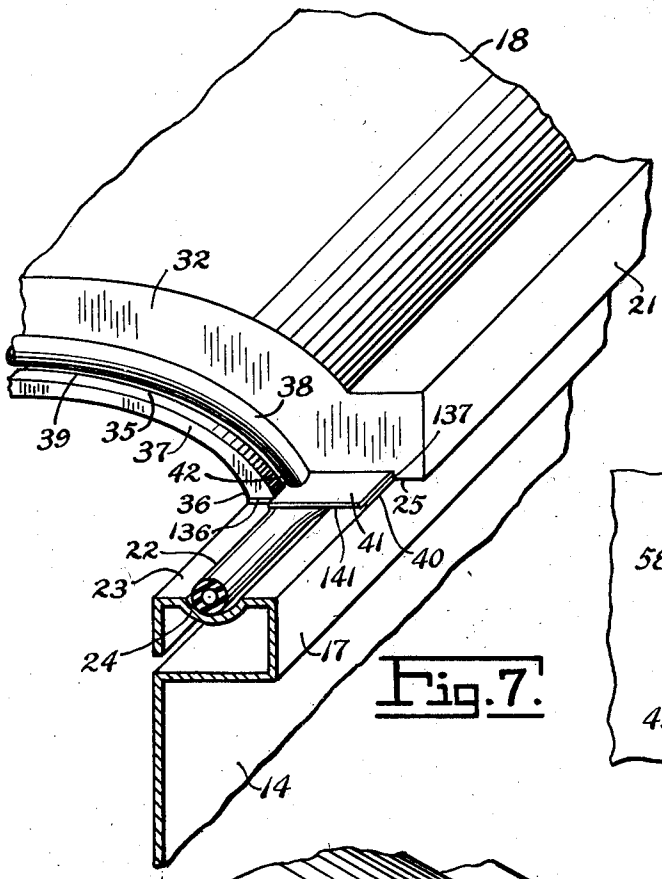


Fig.7.

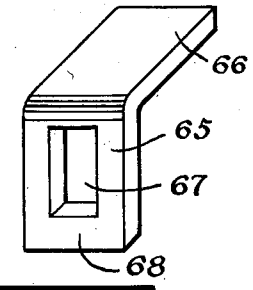


Fig.5.

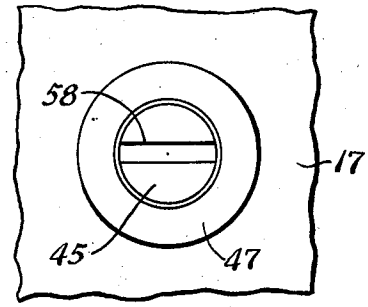


Fig.6.

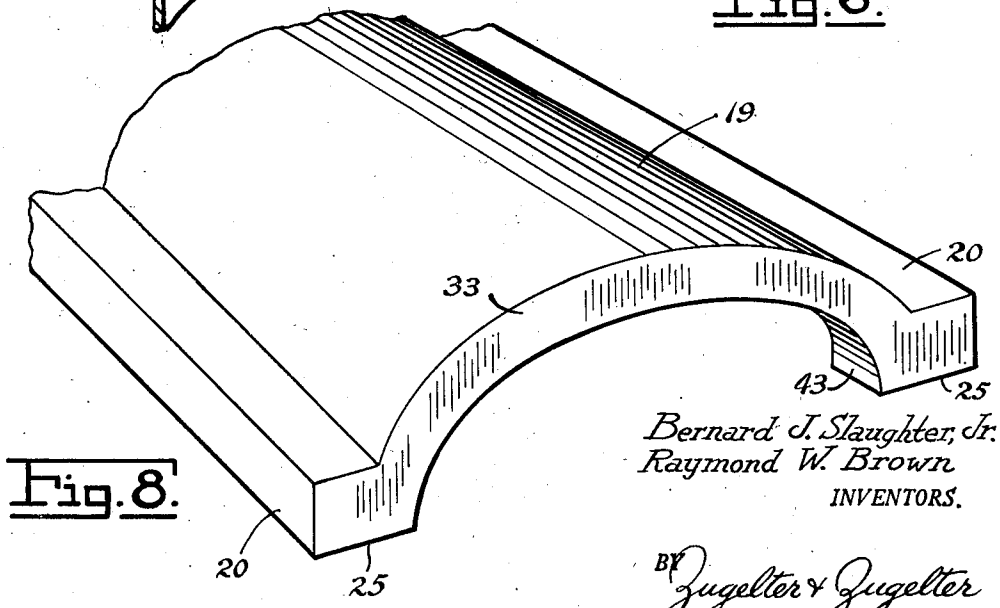


Fig.8.

Bernard J. Slaughter, Jr.
Raymond W. Brown
INVENTORS.

BY Zugelter & Zugelter
Attys.

Patented May 2, 1950 2,506,553

UNITED STATES PATENT OFFICE

2,506,553

CASKET LATCH

Bernard J. Slaughter, Jr., and Raymond W. Brown, Cincinnati, Ohio, assignors to The Crane & Breed Casket Company, Cincinnati, Ohio, a corporation of Ohio

Application September 6, 1946, Serial No. 695,136

5 Claims. (Cl. 292—240)

1

The present invention relates to improvements in a casket latch or the like.

An object of the invention is to provide a burial casket with simple, inexpensive, and effective means for sealing the lid or lids in air-tight relationship with the body of the casket.

Another object of the invention is to provide novel and effective means, simple and easily operative in character, for clamping the lid or lid sections in tightly sealed position upon the body of the casket at various locations about the rim portion thereof, so that the impossibility of leakage of air, water, or other foreign materials into the casket is definitely assured.

Another object of the invention is to provide in a sealed burial casket, means for preventing leakage of air, water or other foreign substances past the lid clamping devices of the casket.

The foregoing and other objects are attained by the means described herein and illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevational view of a half couch type of burial casket embodying the improvements of the invention.

Fig. 2 is an enlarged fragmental cross-sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is an enlarged cross-sectional view taken on line 3—3 of Fig. 1, the lid being shown in a slightly elevated position.

Fig. 4 is an elevational view of a latching device, taken upon line 4—4 of Fig. 3.

Fig. 5 is a perspective view on an enlarged scale, showing a keeper for the latch of Figs. 3 and 4.

Fig. 6 is a fragmental elevational view on a slightly enlarged scale, taken on line 6—6 of Fig. 3.

Fig. 7 is a fragmental detail view showing in perspective the manner of sealing a lid section relative to the body of the casket.

Fig. 8 is a fragmental perspective view showing a second lid section adapted to cooperate with the lid section of Fig. 7, in sealing the casket at the parting line of the lid sections.

The principal parts of the burial casket are illustrated by Fig. 1, wherein 12 indicates the body of the casket, the bottom of which is indicated at 13. As is usual, the body comprises a front wall 14, a rear wall 15, and end walls 16—16, the casket being substantially rectangular of configuration. The upper portion of the casket body is bounded by a peripheral hollow rim 17, and within said rim is housed a series of fastening devices adapted for clamping the lid sections 18 and 19 onto the body portion 12. Although the device illustrated herein is a casket of the half

2

couch type, it will be understood that the invention to be disclosed will apply as well to a full couch type of casket. For convenience of explanation, the lid section 19 may be regarded as the head section, whereas part 18 may be considered the foot section of the bi-part lid. Head section 19 is provided with a hollow rim 20 extending about the front, rear, and end thereof, and a similar rim 21 is associated with the foot section 18. The lid sections may be furnished with any suitable form of cap panel, as is usual in the construction of burial caskets.

As may best be understood by referring to Fig. 7, the upper hollow rim 17 of the casket body, and which extends continuously about the sides and ends thereof, is adapted to support a circumferential sealing element 22 upon which the lid sections may bear in providing a seal circumferentially about the casket rim. The sealing element may be in the form of a tube or cylinder fabricated of live rubber or any suitable rubber-like material characterized by its ability to yield and deform to a partially flattened condition when compressed between the rim of the body and the rim of the lid section. The sealing element normally will be substantially circular in cross section, and will preferably, though not necessarily, be of hollow tube formation. The upper face 23 of rim 17 is depressed to form a continuous groove or seat 24 circumferentially of the rim, to accommodate the sealing element 22. Thus it will be understood that grooves or seats such as 24 are formed in the front, rear, and end sections of rim 17, which extends all around the casket body. It may be noted that the groove or seat 24 is arcuate, and formed on a radius which is larger than the radius of the sealing element. By forming the grooves or seats with a radius larger than the radius of the sealing element, provision is made for compressing and flattening the sealing element between the lower surface 25 of the lid rim 21 and the groove or seat 24, without displacing the sealing element outside the limits of the groove or seat when the lid sections are clamped tightly onto the body of the casket. This construction assures also substantial uniformity in the spreading of the sealing element when the casket is closed. The sealing element preferably will be cemented or otherwise fixed to its seat in the body rim 17, so that it may not be displaced as the lid sections are elevated and lowered in advance of final closing of the casket.

The foregoing description will be understood

as applying quite simply to a casket of the full couch type, or one which embodies a full length lid. By means of the sealing structure described, a full length lid may be lowered onto the casket body rim to effect a tight and serviceable seal precluding passage of air, water or other foreign substance at the joint. As is usual, the lid is hinged to the casket body as indicated at 27, the hinge having leaves 28 and 29 welded or otherwise fixedly secured within the confines of the lid rim and the body rim, respectively (Fig. 2). As will be noted by referring to Fig. 2, the rim portions of the lid flatly contact the rim portions of the body, while the sealing element 22 yields to deformation or partial flattening as the lid is tightly closed. It is highly desirable that the metal to metal contact be achieved as illustrated by Fig. 2, in order that the sealing element may be fully protected against puncture or attack by the elements of the earth, or by such elements as may exist within a vault that might encase the casket. Moreover, the metal to metal contact assures maximum strength and rigidity for the entire assembly when closed and sealed.

The lid rim may be furnished interiorly of the lid, with a peripheral inner flange 30, the purpose of which is to support and maintain in place the usual casket lining material for the lid. Similarly, the body rim 17 may be provided with a depending flange 31 to support the usual lining material for the casket body.

In the case of the half couch type of casket, wherein a plurality of lid sections is utilized, it is necessary to effect an auxiliary seal at the parting line of the lid sections, it being understood that the lid sections are separately movable about their respective hinge points. The manner of providing the auxiliary sealing means is clearly illustrated by Figs. 7 and 8. Referring to Fig 7, it may be noted that the lid section 18 has a vertical end wall 32 adapted to meet the end wall 33 of lid section 19 when the casket is fully closed as illustrated by Fig. 1 wherein the line of parting of the lid sections is indicated at 34. From the solid wall 32 of lid section 18, there is extended horizontally toward the other lid section 19, a metallic ledge 35 which spans the lid section 18 on a curve or arch, from a point 36 where the ledge meets the casket rim 17, to a similar point at the opposite side of the casket. A downwardly extended flange 37 may be formed integrally with the ledge to afford the necessary rigidity and strength to withstand the force with which a transverse sealing element 38 is compressed when the lids are closed onto the casket body. The sealing element 38 may be precisely the same as that indicated at 22, and will rest within a transverse groove or seat 39 formed in substantially the same manner as the groove or seat 24, to accommodate the sealing element 38 in its compressed or partially flattened condition, as well as in its normal cylindrical form. That is to say, the groove or seat 39 is formed on a radius greater than the radius of the sealing element 38.

At the terminal end of the ledge, adjacent to the meeting line 36, a foot 40 is fixed thereto and extended horizontally outwardly to overlie and substantially span the rim surface 23. The foot may be in the form of a thin plate covered with a thin rubber pad 41 upon which rests the terminal end 42 of the sealing element 38. The foot overlies the sealing element 22, and will flatly contact the body rim 23 when forced down upon it. When the foot descends upon the rim 23 incident to closing of the lid section 18, it compresses the sealing element 22 and forms a close joint therewith. Thereafter, as the other lid section 19 is swung to the closed position, its rim will bear upon and distort the sealing element 22, while at the same time the transverse sealing element 38 will be contacted by seat or recess 43, and distorted thereby to a partially flattened condition for completing the seal along ledge 35 and the terminal ends of sealing element 38. Recess 43 spans the lid section 19 on a curve which corresponds to the curvature of the ledge 35, so that the metallic surface of 43 will rest upon the metallic ledge surface 35, while at the same time the seal is effected along the full length of sealing element 38. As will be understood, a foot piece similar to 40 will be provided on the opposite end of ledge 35, at the rear wall of the casket body. The foot pieces 40 may be integral with ledge member 35, or they may be in the form of thin metal plates welded or soldered thereto at the terminal ends, as indicated at 136. Where the foot pieces meet the end wall 32 of the lid, as along the line 137, a tight joint is effected by solder, a weld, or otherwise. The inner edge of pad 41 may abut the end wall 32 at 137, and the opposite edge at 141 may slightly overhang the foot, as shown. At the time of effecting the transverse seal, lid section 19 completes also the seal along the circumferential sealing element 22, resulting in a waterproof and air-tight joint all around the casket body rim and along the full length of the transverse parting joint between the lid sections. The transverse sealing element 38 yields and distorts to substantially the same extent as does the circumferential sealing element 22 when the lid sections are rightly closed upon the casket body.

In order to establish and maintain the necessary tight closure of the lids upon one another and upon the casket body rim, there is provided a series of latches about the ends and the front of the casket rim. Each latch device is characterized by a rotatable part 45 which may be transversely slotted or otherwise formed to accommodate a wrench or other tool for actuating the latching device. Part 45 is reduced in diameter to furnish a shaft 46 to be rotatably received in a sleeve 47 which is exteriorly threaded to accommodate a lock nut 48 whereby the sleeve may be clamped within an aperture 49 formed in the outer vertical face 50 of rim 17. The part 45 of shaft 46 will preferably be accommodated within an annular recess 51 of sleeve 47.

The inner end 52 of shaft 46 is reduced and threaded to receive a second nut 53, the function of which is to clamp onto the shaft a latch plate 54 which, in its body portion 55, is angularly apertured as at 56 to snugly fit a flattened area 57 of the shaft. Thus, when the latch plate 54 is applied to the flattened area 57 of shaft 46, it will move with the shaft when the latter is rotated by means of the tool applied to the slot 58. Nut 53 merely prevents disassociation of latch plate 54 from the flattened area of the shaft.

Referring to Fig. 4, it will be noted that the body 55 of the latch plate includes an extending arm 59 and a horn 60 which is generally arcuate in form. The outer edge 61 of the horn may be an arc whose center is at the axis of shaft 46. The inner edge 62 of the horn, however, is formed on an arc whose center is offset from the axis of shaft 46, so that various points along the length of edge 62 will be progressively closer to the axis

of the shaft, as the distance of such points increases from the tip 63 of the horn.

By referring to Fig. 3 it will be noted that a slot 64 is provided in the rim 17 of the casket body directly above the horn of the latch plate, said slot being adapted to permit passage therethrough of a keeper plate 65 which is fixed to the metal of rim 20 by welding or otherwise fastening the base 66 of the keeper plate thereto. The keeper plate extends substantially perpendicularly from the lower face 25 of the lid rim, and near its free end it is provided with an aperture 67 of proper size to receive the horn 60 of the latch plate. The distance of aperture 67 from the surface 25 of the lid rim is so gauged that the tip of the horn will freely enter the aperture when the lid is casually closed upon the casket body. However, due to the progressively diminishing distance of all points on the inner edge 62 of the horn, from the axis of shaft 46, said edge 62 exerts a camming action upon the strut 68 of the keeper, as the horn is projected progressively through aperture 67 by means of a screw driver or other tool used in rotating the exposed head of the latch shaft. By the time the horn is substantially fully projected through the aperture of the keeper, the rim of the lid will be brought into flatwise contact with the rim of the casket body, and the sealing element 22 will be compressed to the desired extent, as indicated upon Fig. 2, for completing the circumferential seal and also the transverse seal of the casket.

In caskets of the half couch type illustrated, it will ordinarily suffice to furnish each lid section with two or three front latches, and a single end latch, all of the type illustrated and described above. In a full couch type of casket, the number of latching devices along the front may be reduced to three, without impairing the sealing function. It will not ordinarily be necessary to furnish latching devices at the rear of the casket, since the hinge 27 will exert the necessary clamping force at that location.

In order to prevent possible leakage of air, water, or other extraneous matter through the openings 64 and 49 and past the shafts of the latching devices, the following sealing means have been provided. Between the outer vertical face 50 of the body rim 17 and the flange 70 of the sleeve 47 is inserted a ring or washer 71, of impervious resilient material. As the nut 48 is drawn on the threaded portion of the sleeve 47, the resilient washer 71 is compressed between the flange 70 and the vertical face 50, thereby positively sealing the aperture 49 against entry of all foreign matter. For the effective sealing against passage of air, water, and the like around the shaft 46, a resilient annular washer 72 is inserted between the head of the rotatable part 45 and the shaft 46, said washer preferably being elastic in order to dispose it upon the reduced diameter or neck 73, formed on the shaft immediately adjacent the inner face of the head of part 45, as shown in Fig. 3. It is obvious that by drawing up the nut 53 on the threaded part 52 of the shaft, the washer 72 will be compressed within the annular recess 51, thereby effecting a positive seal against the entry of the aforementioned foreign matter around the shaft 46 and into the hollow rim 17 of the body.

Likewise, the opening 64 is sealed with a resilient elongated washer, disposed circumferentially of the keeper 65 and abutting the lower surface 25 of the lid rim. The washer 74, having a perimeter greater than that of the opening 64, will overlap the opening 64 sufficiently to effect a seal when the lid is closed and locked by means of the latching devices hereinbefore described. In order to maintain the advantages of metal to metal contact between the body rim and the lid rim, as hereinbefore recited, the washer 74 is preferably made of a thin resilient material so that when the casket is closed and latched the washer will not offer substantial resistance against said metal to metal contact. The metal forming the lid rim 20, being somewhat flexible and resilient, will yield to a degree sufficient to enable substantially all the lower surfaces 25 of the lid rims 20 and 21 to come in contact with the upper face 23 of the body rim 21, thus maintaining the desired metal to metal contact circumferentially of the casket. Because of the force of resistance offered by the sealing element against closing of the lid sections to home position, a substantial frictional engagement will occur between the horn of each latching device and its associated keeper, with the result that the latches will tend forever to remain tightly engaged and thereby prevent relaxation of the sealing function once established and maintained by rotating the latch plates to the operative holding position.

It is to be understood that various modifications and changes in the structural details of the device may be made, within the scope of the appended claims, without departing from the spirit of the invention.

What is claimed is:

1. As a new article of manufacture, a latch comprising a bored sleeve including a head having an enlarged recess concentric with the bore and forming a shoulder within the sleeve, screw threads on the sleeve adjacent to the head, a rotatable shaft having a head of enlarged diameter disposed within the recess of the sleeve, and a shank rotatable in the sleeve bore, a resilient impervious washer surrounding the shank and located between the head of the shaft and the shoulder of the sleeve bore, a nut on the exterior threads of said sleeve, a resilient impervious washer between the nut and the head of said sleeve, a latch plate mounted on the shaft at the end opposite the shaft head, said latch plate comprising a radial arm and a horn extending therefrom, the horn including a tip remote from the radial arm, a cam edge on the horn curved on a radius offset from the axis of the shaft to dispose spaced points on the cam edge at progressively diminishing distances from the shaft axis in the direction of the radial arm, means for fixing the latch plate against rotation relative to the shaft, and means at the head of the shaft for accommodating a shaft-rotating implement.

2. As a new article of manufacture, a latch comprising a bored sleeve including a head having an enlarged recess concentric with the bore and forming a shoulder within the sleeve, screw threads on the sleeve adjacent to the head, a rotatable shaft having a head of enlarged diameter disposed within the recess of the sleeve, and a shank rotatable in the sleeve bore, a resilient impervious washer surrounding the shank and located between the head of the shaft and the shoulder of the sleeve bore, a nut on the exterior threads of said sleeve, a latch plate mounted on the shaft at the end opposite the shaft head, said latch plate comprising a radial arm and a horn extending therefrom, the horn including a tip remote from the radial arm, a cam edge on the horn curved on a radius offset from the axis of the shaft to dispose spaced points on the cam edge at

progressively diminishing distances from the shaft axis in the direction of the radial arm, means for fixing the latch plate against rotation relative to the shaft, and means at the head of the shaft for accommodating a shaft-rotating implement.

3. As a new article of manufacture, a latch comprising a bored sleeve including a head having an enlarged recess concentric with the bore and forming a shoulder within the sleeve, screw threads on the sleeve adjacent to the head, a rotatable shaft having a head of enlarged diameter disposed within the recess of the sleeve, and a shank rotatable in the sleeve bore, a resilient impervious washer surrounding the shank and located between the head of the shaft and the shoulder of the sleeve bore, a nut on the exterior threads of said sleeve, a resilient impervious washer between the nut and the head of said sleeve, a latch member non-rotatably mounted on the shaft at the end opposite the shaft head, and means at the head of the shaft for accommodating a shaft-rotating implement.

4. As a new article of manufacture, a latch mounted in an aperture in a wall comprising a counterbored, flanged sleeve extending through the aperture, an impervious resilient washer, screw threads on the sleeve adjacent the head, a nut on the threads holding the sleeve in the aperture with the washer compressed between the flange of the sleeve and the wall to effect a seal therebetween, a rotatable shaft projecting through the bore of the sleeve, said shaft having at one end thereof a head exposed exteriorly of the wall, an impervious resilient washer inserted in the counterbore of the sleeve in advance of the head of the shaft and compressed thereby to effect a seal between said head of the shaft and the bore of the sleeve, a latch plate fixed to the shaft interiorly of the wall, said latch plate comprising a radial arm and a horn extending therefrom, the horn including a tip remote from the radial arm, a cam edge on the horn curved on a radius offset from the axis of the shaft to dispose spaced points on the cam edge at progressively

diminishing distances from the axis of the shaft in the direction of the radial arm, the horn being constructed to engage a keeper for drawing the keeper toward the shaft, the latch forming a liquid-tight closure for the aperture.

5. As a new article of manufacture, a latch comprising a bored sleeve including an enlarged head having an enlarged recess concentric with the bore and forming a shoulder within the sleeve, a rotatable shaft having a head of enlarged diameter disposed within the recess of the sleeve and a shank rotatable in the sleeve bore, a resilient, impervious washer surrounding the shank and located between the head of the shaft and the shoulder of the sleeve bore, screw threads on the sleeve adjacent the head, a nut on the threads, an impervious resilient washer between the nut and the head of the sleeve, a latch member non-rotatably mounted on the shaft at the end opposite the shaft head, and means for accommodating a shaft rotating implement at the head of the shaft.

BERNARD J. SLAUGHTER, JR.
RAYMOND W. BROWN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
147,263	Hersman	Feb. 10, 1874
617,582	Kuhn	Jan. 10, 1899
621,318	Brachhausen	Mar. 21, 1899
1,486,384	King	Mar. 11, 1924
2,031,664	Miller	Feb. 25, 1936
2,120,039	Payne	June 7, 1938
2,140,203	Gravesen	Dec. 13, 1938
2,284,921	Purkiss	June 2, 1942
2,323,674	Purkiss	July 6, 1943

FOREIGN PATENTS

Number	Country	Date
2,465	Great Britain	Aug. 19, 1872
77,859	Switzerland	June 1, 1918