Jan. 1, 1935. A. D. HACKWORTH 1,986,057

WATERPROOF CASE

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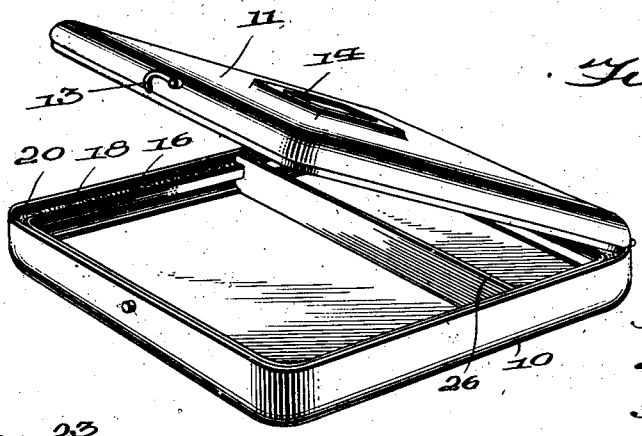


Fig. 1.

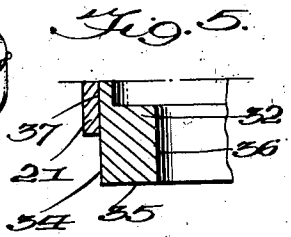


Fig. 5.

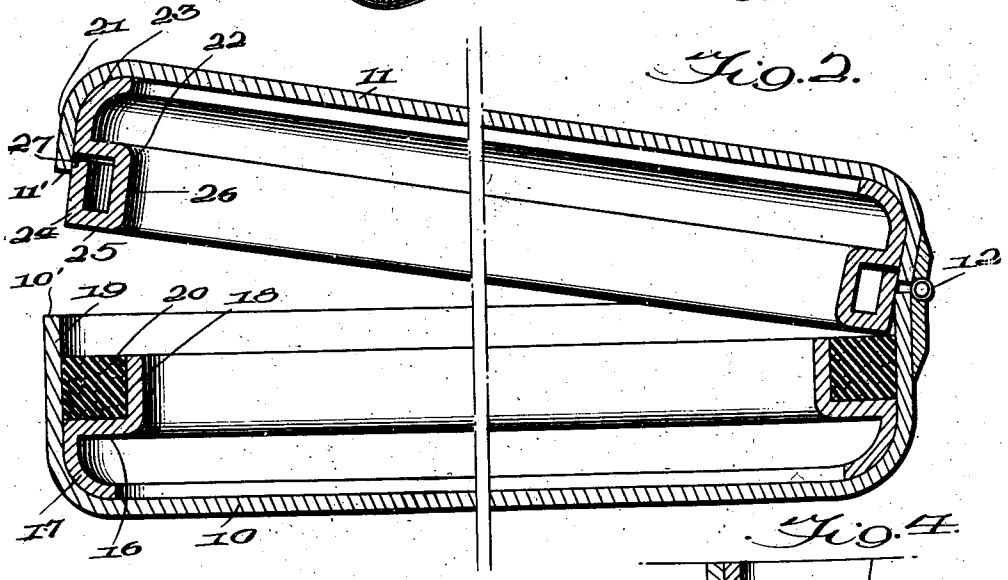


Fig. 2.

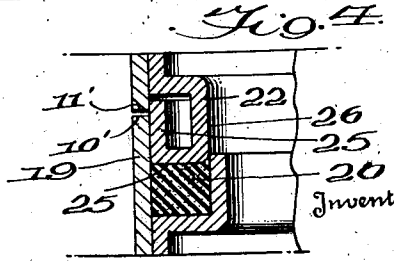


Fig. 4.

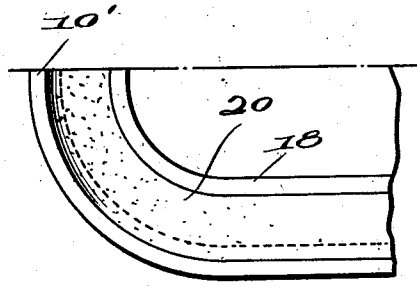


Fig. 3.

Inventor

Admiral D. Hackworth,

By Edmund A. Parry

Attorney

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1,986,057

WATERPROOF CASE

Admiral D. Hackworth, Ellet, Ohio

Application July 19, 1932, Serial No. 623,420

6 Claims. (Cl. 220—46)

This invention relates to a waterproof case and more in particular to a case adapted to contain cigarettes, loose change, matches, and a compact and the like. Such articles are susceptible to injury by water and moisture and hence must be kept dry. The proposed construction serves such end and is also of such size and shape as renders the same convenient to carry. It is adapted to use under all conditions, particularly where moisture is present. Thus, it is well suited to the use of bathers and others who find themselves near the water.

The object of this invention is to provide a waterproof case designed to serve the above end as it is especially designed to accommodate the various needs mentioned and to protect them at all times against moisture, even in the event that the case should be subjected to immersion in the water.

Another object of this invention is to provide a case of the type described with a novel waterproof joint and closure between its associated parts constructed in such a manner as to positively exclude any water or moisture from entering the case.

In the accompanying drawing I have shown my invention illustrated in the preferred form, and the above objects and advantages incident to my invention may be readily seen from a consideration of the following specification.

Fig. 1 is a perspective view of the case with the lid partially open to show a portion of the interior;

Fig. 2 is a cross-sectional view of the case showing the sealing joint;

Fig. 3 is a sectional top view of one corner of the base of the case showing a portion of the sealing means;

Fig. 4 is a fragmentary view of the parts of the joint in sealing engagement; and,

Fig. 5 is a fragmentary view of a modified form of one of the sealing means.

In the drawing wherein like reference numerals designate corresponding parts throughout the several views, 10 indicates the base of the case and 11 the top closure, which parts are joined by the hinge 12. A friction closure fastener or catch is provided at 13. A portion of the top 11 is pressed out as at 14 in bas-relief to provide a place for initials or other indicia desired upon the outside thereof, and to form on the inside a counter-sunk portion to receive a mirror which may be retained in position by any suitable means, such as cementing.

Positioned within the base 10 is a flanged insert 16 parallel with the side walls of the base and secured thereto through the portion 17 which contacts with the side walls and bottom, such insert preferably being of metal. The flanged portion 18 of the member 16 forms together with a side wall 19 of the base a peripheral channel in which is seated a packing member 20, preferably of rubber.

Secured in the top of the casing and extending parallel with the side walls 21 thereof is the sealing insert 22, this member being fastened to the top through the portion 23. This member is so formed as to make sealing contact with one or more surfaces of the channel portion of the base. Preferably the same is resilient so as to insure a better seal. It may be made hollow, as shown in Figs. 2 and 4, and comprise faces 24, 25 and 26, located at right angles to each other, one or more of which is adapted to abut a corresponding portion of the sealing means associated with the base. The edge 27 of the member should be free as thus the member can more readily adapt itself to the shape of the base sealing means.

One or both of the sealing inserts 16 and 22 may be made of metal, as is preferably the entire casing. I have found that for the sake of economy, compactness and lightness of weight, aluminum is desirable and very satisfactory.

Instead of making the sealing insert in the top portion hollow, as above described, it may be found preferable to stamp or mold the same in solid form as illustrated in Fig. 5, wherein the numeral 32 indicates generally the insert, and 34, 35 and 36 the faces thereof corresponding to those of the hollow insert 22 of Fig. 2. It will be secured to the side wall 21 along their line of joinder 37. If the solid insert be made of resilient material the sealing effect can be increased by terminating the connecting joint short of the lower end of side wall 21 so that the insert in its enlarged portion and the thinner portion immediately thereabove will be in full abutment with the side wall, this allowing the insert to more effectively coact with the base seal.

When the case is closed, as shown in Fig. 4, the peripheral edges 10' and 11' of the base and top portions, respectively, of the casing will be in abutting engagement, the peripheral face 25 of the sealing element 22 will seat upon packing ring 20, and the face 24 of the sealing insert 22 will bear against the inner walls of the top and base portions of the casing adjacent the abutting edges 10' and 11' of the casing,

and a positive sealing between the top and base portions of the casing will be assured to keep the interior free of moisture and water. The sealing insert 22 is preferably formed to possess a degree of resilience such as will increase the sealing effect with the complementary elements of the base. The insert 16 will tend to hold the packing ring 20 firmly against the face 24 of the sealing member 22, and the face 25 of the sealing insert 22 will bear firmly against the inner walls of the casing adjacent the closure and tend to form a moisture-proof joint. The member 16 may also be made resilient. The sealing effect will be increased if the flanged portion 18 thereof bears against the inner face 26 of the insert 22, and this will serve also to increase the sealing contact between the outer face 25 of the insert against the side wall 19 of the base.

The interior of the casing may be divided into any suitable number of compartments as is desired. In Fig. 1 is shown a division plate 28 to form compartments.

What I claim is:

1. A casing comprising top and bottom members having peripheral side walls disposed with their complementary edges in abutting relation, and with the inner faces of said side walls in alignment and presenting a continuous flat surface at and adjacent the joint between said edges, an element secured to one of the members presenting a flat side wall extending in parallel spaced relation to the inner side face of said member adjacent the joint and forming therewith a channel, a yieldable packing seating in said channel, and a coacting sealing element secured to the second casing member having an edge portion engageable with said yieldable packing, said sealing element also presenting inner and outer flat parallel faces adapted to closely fit the channel and make face to face engagement, the inner face with the inner channel wall and the outer face with the inner faces of the top and bottom side wall on both sides of the joint.

2. A casing comprising top and bottom members having peripheral side walls disposed with their complementary edges in abutting relation, and with the inner faces of said side walls in alignment and presenting a continuous flat surface at and adjacent the joint between said edges, an element secured to one of the members presenting a flat side wall extending in parallel spaced relation to the inner side face of said member adjacent the joint and forming therewith a channel, a yieldable packing seating in said channel, and a coacting sealing element secured to the second casing member, said sealing element presenting spaced, parallel, flat inner and outer walls adapted to closely fit and make face to face engagement one with the inner wall of the channel and the other with the aligned inner faces of the top and bottom side walls on both sides of the joint, a bottom wall engageable with the yieldable packing in the channel, and a top wall securing the sealing element to the second casing member and connecting with the inner wall of the sealing element beyond the end of the outer wall so as to leave said end free and permit the said outer wall of the sealing member to yieldingly engage its coacting parts.

3. A casing including top and bottom members, a channel portion presenting opposing flat side walls associated with the side wall of one of said members adjacent the joint therebetween, a yieldable packing disposed in said channel portion, a hollow resilient sealing element secured to the second of said members, said sealing element presenting opposing flat walls adapted to closely fit said channel and make yielding face to face engagement with the respective opposing flat side walls of said channel portion, and also presenting an edge portion engageable with the yieldable packing seating in the channel portion.

4. A case comprising top and bottom members having peripheral side walls disposed with their complementary edges in abutting relation, and with the inner faces of said side walls in alignment and presenting a continuous flat surface at and adjacent the joint between said abutting edges, a resilient packing extending around the inner face of the side wall of one of said members adjacent the edge thereof, and a coacting sealing element secured to the other member engageable at its end with said resilient packing and also presenting an outer surface adapted to extend across the joint between the abutting edges, said outer surface of said sealing element being flat and making continuous contact with the aligned flat inner faces of the top and bottom side walls adjacent the joint.

5. A case comprising top and bottom members having peripheral side walls disposed with their complementary edges in abutting relation, and with the inner faces of said said side walls in alignment and presenting a continuous surface at and adjacent the joint between said abutting edges, a resilient packing extending around the inner face of the side wall of one of said members adjacent the edge thereof, and a coacting sealing element secured to the other member engageable at its end with said resilient packing, said sealing element being hollow and presenting a resilient outer wall positioned to extend across the joint between the abutting edges and making yielding sealing engagement with the aligned inner faces of the top and bottom side walls on each side of the joint.

6. A casing comprising top and bottom members having peripheral side walls disposed with their complementary edges in abutting relation, and with the inner faces of said side walls in alignment and presenting a continuous surface at and adjacent the joint between said abutting edges, a sealing element having a forward wall positioned to extend across the joint between the abutting edges and making sealing contact with the aligned inner faces of the top and bottom side walls on each side of the joint, one edge of the forward wall of said sealing member being free and lying opposite one of said aligned casing side walls, the other edge of said forward wall lying opposite the other of said aligned walls and said forward wall of the sealing member being connected through said second edge with the side wall which opposes the free edge of said forward wall at a point beyond said free edge so that the sealing member makes resilient yielding engagement with both of said aligned casing walls.

ADMIRAL D. HACKWORTH.