No. 896,244. PATENTED AUG. 18, 1908.

I. C. REESOR.

SELF LOCKING SEAL.

APPLICATION FILED DEC. 9, 1907.

Fig. 1.

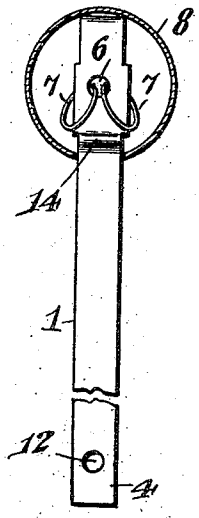


Fig. 2.

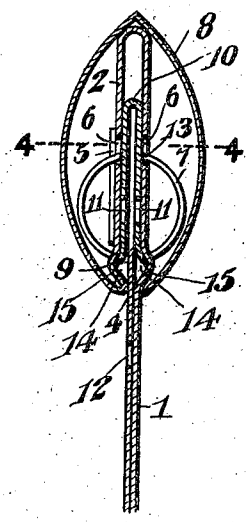


Fig. 3.

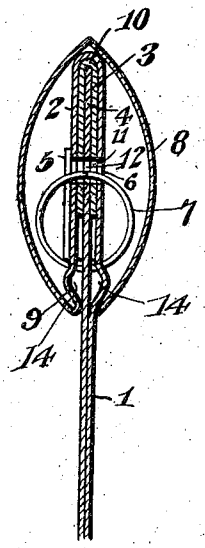


Fig. 5.

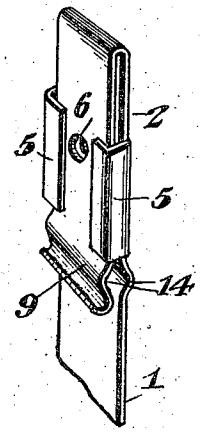


Fig. 6.

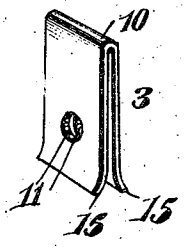
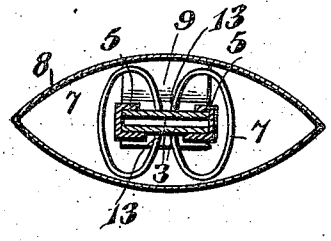


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

ISAAC CHRISTIAN REESOR, OF DENVER, COLORADO, ASSIGNOR OF ONE-HALF TO HALSTED L. RITTER, OF DENVER, COLORADO.

SELF-LOCKING SEAL.

No. 896,244. Specification of Letters Patent. Patented Aug. 18, 1908.

Application filed December 9, 1907. Serial No. 405,749.

To all whom it may concern:

Be it known that I, ISAAC CHRISTIAN REESOR, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented a new and useful Self-Locking Seal, of which the following is a specification.

The invention relates to improvements in self locking seals.

The object of the present invention is to improve the construction of self locking seals and to provide an exceedingly simple and inexpensive construction having means for effectually preventing its locking device from being accidentally jarred into its locked position, and capable, when locked, of effectually preventing an instrument from being introduced into it for releasing the sealing strip.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of contrsuction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a plan view, partly in section of a selt locking seal, constructed in accordance with this invention, the device being unlocked. Fig. 2 is a longitudinal sectional view of the same, the free end of the sealing strip being introduced into the entrance opening of the outer shell or casing in position for moving the slide inwardly. Fig. 3 is a similar view, the parts being locked. Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2. Fig. 5 is a detail perspective view, illustrating the construction of the inner support or casing. Fig. 6 is a detail perspective view of the slide.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates a sealing strip having its inner portion doubled or bent upon itself to form an inner support or casing 2, which consists of two sides spaced apart to receive a slide 3 and the free end 4 of the sealing strip, when the seal is locked. One of the sides of the inner support or casing is provided at its side edges with longitudinal flanges 5, substantially L-shaped in cross section and extending inwardly to embrace and support the opposite side of the inner support or casing 2. The inwardly extending portions of the side flanges 5 terminate short of the median line of the inner support or casing, and the sides thereof are provided with centrally arranged apertures 6, disposed in alinement and adapted to receive the engaging portions of the locking springs 7, which are in the form of rings.

The inner support or casing is arranged within an outer shell or casing 8, composed of two substantially concavo-convex sections or members, one of which is formed integral with one of the sides of the support or casing, being connected with the same at the mouth or entrance of the outer shell or casing by an integral portion 9. The two sections or members of the casing may be secured at their peripheries by any suitable means, as will be readily understood. The slide 3, which is movable between the sides of the inner support or casing, is substantially U-shaped in longitudinal section, the metal being doubled to form two sides and a connecting bend or portion 10, located at the inner end of the slide and adapted to be engaged by the free end of the sealing strip, when the latter is introduced into the seal. The slide is provided in its sides with opposite apertures 11, which when the slide is moved inwardly by the free end of the sealing strip, are carried into register with the apertures 6 of the inner support or casing to permit the engaging portions of the locking springs to pass through the said apertures and also through an aperture 12 of the free end 4 of the sealing strip.

The rings are split, and the terminals or engaging portions 13 are held separated or spread by the inner imperforate portions of the sides of the slide, when the latter is at the limit of its outward movement, as illustrated in Fig. 2 of the drawing. The parts are then set for automatic locking, and when the slide is moved inwardly, the engaging portions 13 of the rings will pass through the registering apertures and will lock the free end of the sealing strip, as clearly illustrated in Fig. 3 of the drawing. When the parts are unlocked, the rings are preferably arranged in an inclined or angular position, as illustrated in Fig. 1 of the drawing, to dispose them more or less flatwise with relation to the inner support or casing, so that they will not be sepa-

rated or sprung to the extent they would be were they arranged in planes at right angles to the plane of the support.

In order to prevent the slide from being accidentally moved backwardly or inwardly through the jars incident to jumping on and off cars and the like, the sides of the inner support or casing are provided at their front ends with inner grooves 14, formed by bending the sides outwardly and adapted to be engaged by the outer ends 15 of the sides of the slide. The outer ends 15 of the sides of the slide are bent laterally or flared to engage them with the grooves of the sides of the inner support or casing, and they are thereby positively interlocked with the latter to retain the slide in its outermost position. The flaring of the outer ends of the sides of the slide also form an enlarged mouth for guiding the free end of the sealing strip into the space between the sides of the slide. This will prevent the free end of the sealing strip from engaging the outer end of either side of the slide and moving the same inwardly, and there is no danger of the device being sprung by the sealing strip without the latter being in proper position to be engaged by the locking springs. When the rings are sprung their engaging ends are overlapped so that it is impossible to withdraw the sealing strip. Also when the parts are locked, the sealing strip closes the mouth or entrance of the outer shell or casing, so that it will be impossible to introduce a knife blade, or other instrument into the same without injuring the outer shell or casing and indicating the fact that the seal has been tampered with. Furthermore, it will be necessary to practically destroy the seal in order to disengage the locking rings from the sealing strip.

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

1. In a self locking seal, the combination of an outer shell or casing, a sealing strip connected at one end to the same, an automatic locking device located within the outer shell or casing and having a portion for engaging the free end of the sealing strip, and a movable member arranged to support the engaging portion of the locking device out of its engaging position to set the said locking device, said movable member including yieldable means for engaging the support to hold it against accidental movement and actuated by the free end of the sealing strip to release the engaging portion of the device.

2. In a self locking seal, the combination with a shell or casing, and a sealing strip connected at one end to the same, of an automatic locking device mounted within the shell or casing and having an engaging portion for locking the free end of the sealing strip, and a slide movable independently of the locking device and arranged to support the engaging portion thereof out of its engaging position to set the seal, said slide having a yieldable portion for holding it against accidental movement and actuated by the free end of the sealing strip to release the locking device.

3. In a self locking seal, the combination with a support or casing having an aperture, and a sealing strip, of an automatic locking device provided with an engaging portion located opposite the said aperture, a slide arranged within the support or casing and having a portion for holding the locking device out of engagement, said slide being also provided with a yieldable projection for holding it against accidental movement and actuated by the sealing strip to permit the locking device to project into the opening for engaging the sealing strip.

4. In a self locking seal, the combination of an inner support or casing having an aperture, a sealing strip, a locking spring provided with an engaging portion located opposite the said aperture, and a slide mounted within the inner support or casing and having a portion for holding the spring out of engagement, said slide being also provided with a yieldable projecting portion for holding it against accidental movement and movable independently of the locking spring and actuated by the sealing strip to release the said spring to cause the same to engage the sealing strip.

5. In a self locking seal, the combination with a sealing strip, of a support or casing having spaced sides provided with apertures, a locking spring having engaging portions located opposite the said apertures, and a slide operating within the support or casing for holding the engaging portions of the locking spring in spaced relation and expansible to engage the support or casing and arranged to be moved out of such position by the sealing strip.

6. In a self locking seal, the combination with a sealing strip, of a support or casing having spaced sides provided with apertures, a locking spring having engaging portions located opposite the said apertures, and a resilient slide operating within the support or casing for holding the engaging portions of the locking spring in spaced relation and arranged to be moved out of such position by the sealing strip, said slide and the support or casing being provided with coöperating interlocking parts for preventing accidental movement of the slide.

7. In a self locking seal, the combination with a sealing strip, of a support or casing having spaced sides provided with apertures, a locking device having engaging portions located opposite the said apertures, and a slide operating within the support or casing for holding the engaging portions of the locking spring in spaced relation and arranged

to be moved out of such position by the sealing strip, said slide and the support or casing being provided with interlocking means one of which is yieldable and adapted to be carried out of engagement with the other by the sealing strip.

8. In a self locking seal, the combination of a support or casing having spaced sides provided with opposite grooves, said support or casing being also provided with an aperture, a locking spring having an engaging portion located opposite the aperture, a slide operating in the support or casing for holding the spring out of engagement, said slide being provided with projecting portions for engaging the grooves of the support or casing.

9. In a self locking seal, the combination of a support or casing having spaced sides provided with opposite grooves, said support or casing being also provided with an aperture, a locking spring having an engaging portion located opposite the aperture, a slide operating in the support or casing for holding the spring out of engagement, said slide being composed of spaced sides having laterally bent portions for engaging the said grooves.

10. In a self locking seal, the combination with a sealing strip, of a support or casing having spaced sides and provided with an aperture, a locking device having an engaging portion located opposite the aperture and adapted to extend across the space between the sides of the casing, and a slide operable in the support or casing and actuated by the sealing strip and composed of spaced sides and having an imperforate portion for holding the locking device out of engagement and provided with an aperture adapted to register with that of the support or casing.

11. In a self locking seal, the combination of an outer shell or casing composed of sections, a sealing strip having its inner face doubled to form an inner support or casing and formed integral with one of the sections thereof, the doubled portion of the sealing strip being provided with opposite apertures, a pair of locking rings having engaging portions located opposite the apertures, and a slide mounted within the doubled portion of the sealing strip and actuated by the free end of the latter and having an imperforate portion to space the engaging portions of the locking rings and provided with an opening to receive the engaging portions of the springs.

12. In a self locking seal, the combination of a casing having an entrance opening, a sealing strip connected at one end to the casing, an automatic locking device located within the casing and having a portion for engaging the free end of the sealing strip, a slide arranged to hold the engaging portion of the spring away from its engaging position, and a support receiving the slide and provided at the entrance opening of the casing with means for holding the slide against accidental movement.

13. In a self locking seal, the combination of a casing, a sealing strip doubled within the casing to form a support, a locking device for engaging the free end of the sealing strip, and a slide for holding the locking device away from its engaging position, said slide consisting of a strip of metal doubled to form two sides for engaging the doubled portion of the sealing strip, whereby the slide is held against accidental movement.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ISAAC CHRISTIAN REESOR.

Witnesses:
R. E. WINBOURN,
HAMLET J. BARRY.