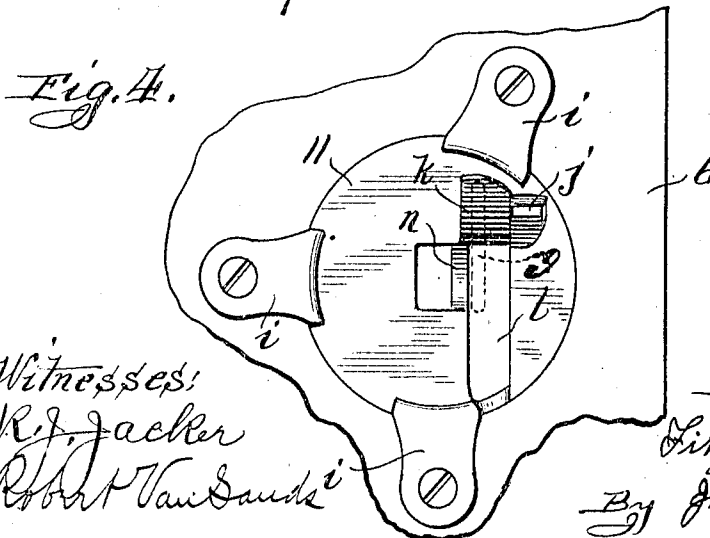
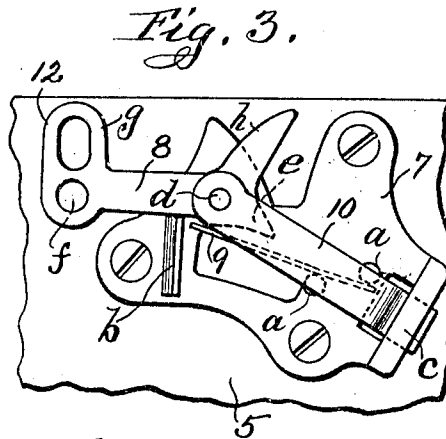
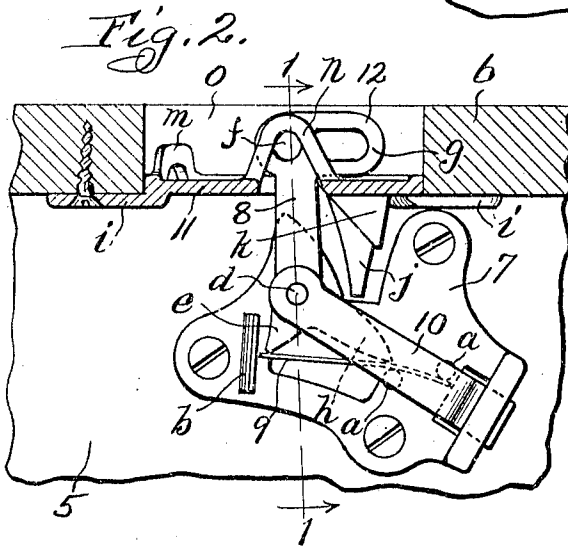
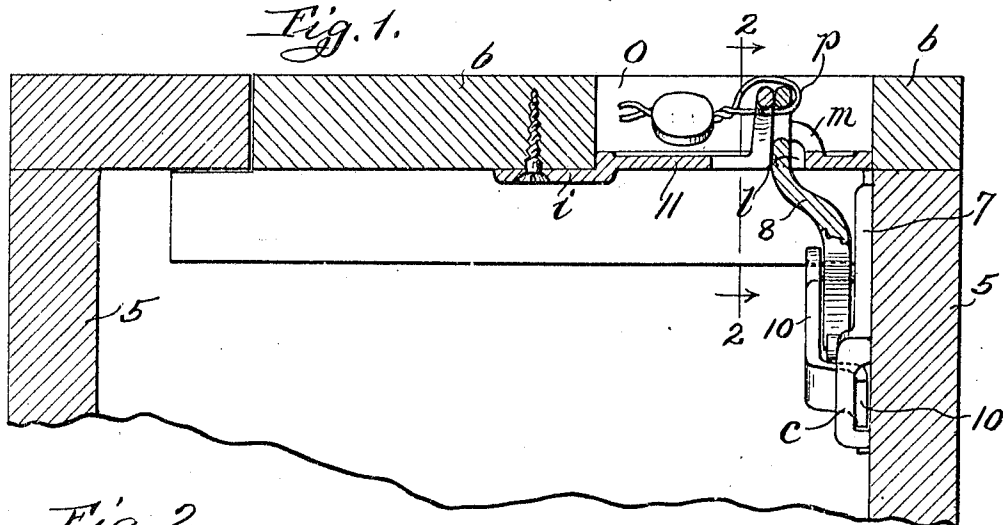


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SEAL LOCK FOR BOXES.
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Patented Feb. 15, 1910.



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SEAL-LOCK FOR BOXES.

949,343.

Specification of Letters Patent.

Patented Feb. 15, 1910.

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To all whom it may concern:

Be it known that I, FITZALLAN B. WILLIAMS, of Chicago, in the State of Illinois, have invented certain new and useful Improvements in Seal-Locks for Boxes, of which the following is a specification.

My invention relates to improvements in means for locking and sealing wooden boxes or beer cases adapted to be applied on the inside thereof and below the exterior surface of the box cover. Heretofore a spring locking-bar has been applied to the interior of such boxes and projected through an opening in the cover to engage a striking-plate applied on the outside of the cover. In such construction the striking-plate and engaging hook of the locking-bar project above the level of the outer surface of the cover; and the locking-bar stands considerably above the upper edge of the sides of the box when the cover is raised. Another prior spring locking-bar has been applied to the interior of such boxes in conjunction with a striking-piece provided with a raised cross-bar adapted to be applied to the under surface of the cover, there being no opening in the cover as set forth in my United States Patent of August 25, 1908, No. 896,786. In such construction the striking-piece and engaging hook of the locking-bar work within the box below the level of the under surface of the cover.

The objects of my present invention are, first, to provide a form of locking means adapted to be applied to the interior of the box and under side of the cover so as to lock below the level of the outer surface of the cover and within a recess formed by an opening through the cover; second, to provide a latch adapted to swing in a plane parallel with the side of the box to which it is attached, and to be turned down below the upper edge of the box or turned up and stand above it as may be desired; third, to provide a striking-plate and the latch with cams for throwing the latch from either its down position or its up position into engagement with the plate by the pressing down of the cover; and fourth, to provide sealing devices in conjunction with such locking means.

I attain these objects by the means illustrated in the accompanying drawing in which—

Figure 1 is a transverse vertical section taken at the line 1—1 of Fig. 2 and shows a

fragment of a box and the manner of applying my improved locking means thereto. Fig. 2 is a section on the line 2—2 of Fig. 1 showing some of the parts in elevation. Fig. 3 shows a plan or top view of the latch-plate and latch as applied to the interior of the box, the latch being turned down. Fig. 4 is a plan view showing the under side of the striking-plate, the dotted lines showing the position of the latch as engaged with the plate.

Like signs marked on the drawings refer to like parts throughout the several views.

The numeral 5 is the box shown in fragment, 6 being the box cover. The latch-plate 7 is shown as attached on the inside to the front of the box near its upper edge. The latch 8 is pivoted to said plate so as to swing in a plane parallel therewith. The latch is preferably put under spring tension. For this purpose the plate may be provided with pins *a* and a stop-lug *b* to hold a flat spring 9. A bar 10, which is bent at one end so as to engage a keeper *c* over a recess in the top of the plate, has the other end secured by the pivotal rivet at *d* upon which the latch vibrates and is applied over the pins so that said bar keeps the spring from slipping out from between the pins, and the stop *b* and a bend of the bar at the other end prevent the spring's endwise displacement. A cam *e* of the latch bears on the spring and puts the latch constantly under the tension of the spring. The head or free end of the latch is provided with a perforation *f* and has an angular projection or hook-like part *g*; and *h* is an arm or cam on the latch for purposes presently to be explained.

The striking-plate comprises a thin metallic slotted piece, preferably a disk 11, provided with radial lugs *i* having screw holes, the disk rising above the upper surface of the lugs; a downwardly projecting arm *j* on the disk; a beveled or cam lug *k* located at the end of the slot *l* which at the outer end is spanned by a bridge *m* on the top of the disk; and a loop or staple-like part *n* projecting upwardly from the top side of the disk and extended parallel with and along the side of said slot. The slot is shown as enlarged at one end but such enlargement is not a material feature. The outer end of the slot terminates coincidently with outer edge of the plate and the bridge *m* is used as a means of strengthening the plate at this point. The bridge is elevated to allow the

latch to pass under it in the slot. The construction of said plate is such that when a hole as *o* of the size of the disk is made near the front end of the wooden cover of a box

5 of half inch stuff the plate can be secured to the under side of the cover, the disk projecting its thickness up into the hole *o* and the upper surface of the radial lugs lying flat up against the under side of the cover,

10 the part *h* extending upward in the hole nearly to the level of the upper surface of the cover but not above it, and the cam *k* and arm *j* projecting downwardly from said disk.

15 The latch-plate being secured to the front of the box on the interior and beneath the striking-plate in such relative position that the head of the latch can be turned up and pass through the slot *l*, the operation will be

20 as follows: If the latch is turned down to the position shown in Fig. 3 the shutting down of the cover will cause the end of arm *j* to strike the cam *k* of the latch and thereby throw the latch up, causing the hook-like

25 part *g* to traverse the slot *l* and engage the upper surface of the disk at the end of said slot. If the latch is turned up to the position shown in Fig. 2 before the box cover is

30 let down, the cam *k* of the disk (when the cover is turned down) will strike the latch head at the point 12, causing the head to be thrown back in passing the incline of said

35 cam *k* and entering said slot, sufficiently to allow the spring to throw the latch forward and into engagement with the disk to lock the parts as shown in Fig. 2. When so

40 locked and before sealing the head of the latch is accessible by means of the hole *o* and may be pushed back and the first effect of this pushing back is to cause the cam *k*

45 of the latch to strike the end of arm *j* and push the cover up sufficiently to afford a hold of it to be taken for opening it fully. The latch bar is curved outwardly so as to

50 carry the head out of the plane in which the cam *k* and arm *j* work. The loop *n* stands parallel with the plane in which the latch has movement and close to the same. When

55 the latch is locked the perforation *f* of the latch-head is in line with the opening of said loop as seen in Fig. 2, so that the seal wire *p* (Fig. 1) may be threaded through both the

60 loop and said perforation, as through a short hole in a single piece and only a short piece of the seal wire is required, and it may be twisted close to the latch head or loop to make a seal link which may be turned thereon to allow the seal wire to lie over the disk, and wholly within the recess in the cover

65 formed by the hole *o* below the outer surface of the cover. It is further noted that neither the latch head nor the loop *n* rises above the cover but is at all times, below it, and the arrangement is such that these parts can be

70 within the same hole *o* with the seal and

have such location therein as to make them more readily accessible for threading the seal wire therein, so that it shall lie in said hole entirely below the upper surface of the cover.

The principle of the invention is found in the pivotal latch provided with a cam and adapted to move in a plane parallel with the inside of the box wall to which it is attached, and to stand perpendicular or remain horizontal when turned to either of these positions, and provided with an eye in the head in combination with a slotted striking-plate adapted to set on the inside in a perforation through the cover of a box and having a

75 downwardly projecting arm and an upwardly projecting loop, the latter in close parallel relation with the slot, the arm of said plate cooperating with a cam of said latch to turn the latch from the horizontal

80 position to the perpendicular or locking position.

It is preferred, though not essential, that the latch be under spring pressure adapted to hold it in the perpendicular and the horizontal positions, but permitting it to be

90 turned from one to the other of these positions by the using of slightly increased force. It is further preferred that the striking-plate have the beveled cam *k* in connection

95 with the spring-pressed latch for working the latch in its perpendicular position by the closing down of the cover.

It should be noted that the striking-plate is so adjusted, on the bottom side of the

100 cover, that the loop does not rise to the level of the top surface of the cover, and that the latch-plate is so adjusted relatively thereto that the latch-head when the latch is perpendicular does not rise above the loop.

What I claim is:

1. In a locking device of the class described, a latch-plate and a hook-like latch pivoted to the plate so as to swing in a plane parallel therewith and said latch having a

110 cam *k* and perforation *f*, in combination with a slotted striking-plate provided with a downwardly-projecting arm *j* and an upwardly-projecting loop *n*, the slot of said plate registering with the latch-head and the

115 loop being extended parallel with the slot and in close proximity thereto, as specified.

2. In a locking device of the class described, a latch-plate and a hook-like, spring-pressed latch pivoted thereto so as to swing

120 in a plane parallel therewith, the latch having a cam *k* and a perforation *f*, in combination with a slotted striking-plate provided with a downwardly-projecting arm *j*, a

125 downwardly-projecting cam *k*, and an upwardly projecting loop *n*, the slot registering with the latch-head, the cam *k* being at one end of the slot, and the loop *n* being extended parallel with the slot and in close proximity thereto, as specified.

3. In combination, a wooden box and cover,
the cover formed with an opening near the
front edge, a slotted plate formed with a cam
at one end of the slot and an arm adjacent to
5 the cam on one side of the plate and a loop
parallel with the slot on the opposite side of
the plate, a hook-like, spring-pressed latch
pivotally mounted to swing parallel with the
inside of the box, and adapted to register
10 with the slot of the striking-plate, the latch-

head having a perforation adapted to regis-
ter with said loop and to receive a fastening
means, said latch-head, loop and fastening
means, all being within the opening in the
cover and below its upper surface, as 15
specified.

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