

1,028,834.

Patented June 4, 1912.

Fig. 1.

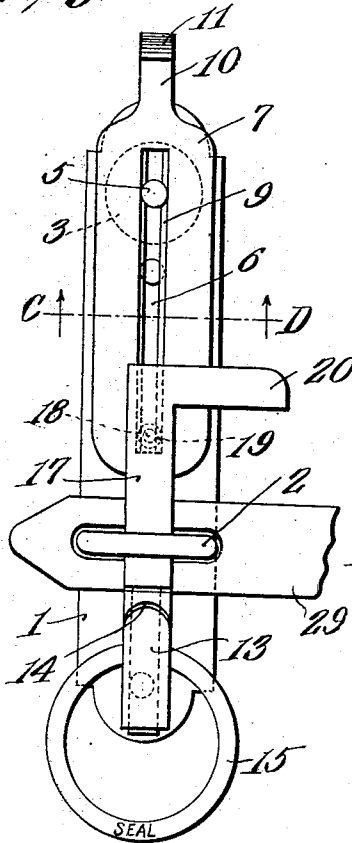


Fig. 3.

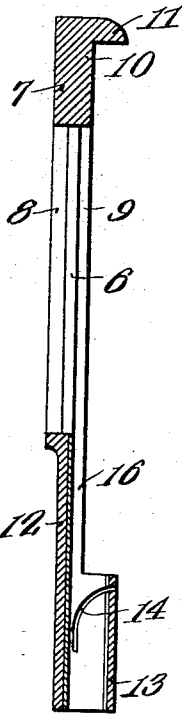


Fig. 2.

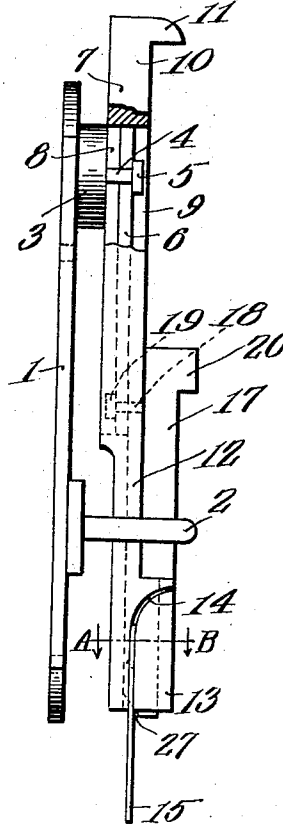


Fig. 4.

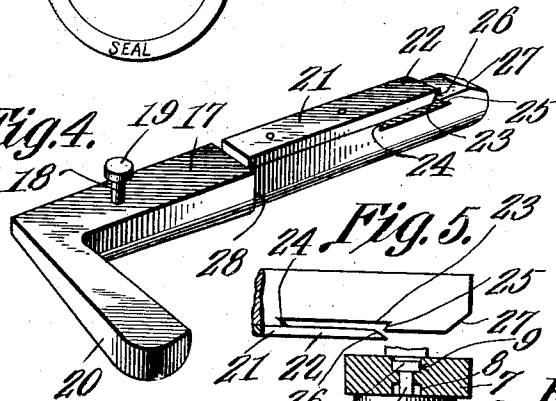


Fig. 5.

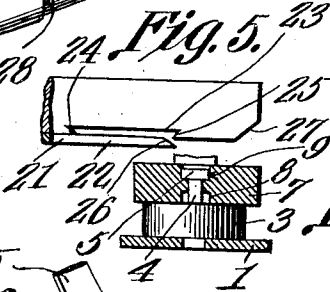


Fig. 6.

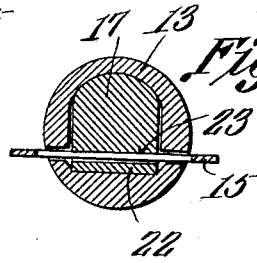
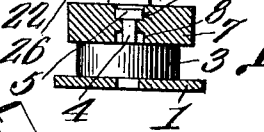


Fig. 7.



Witnesses

J. G. Goulin
L. H. Wilson

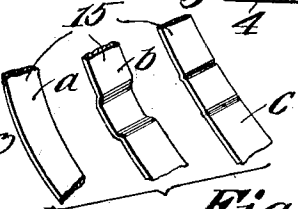


Fig. 8.

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UNITED STATES PATENT OFFICE.

ALFRED WOOLEN, OF GROVE, NORTH DAKOTA, ASSIGNOR TO HIMSELF AND FRANK O. HELLSTROM, OF GROVE, NORTH DAKOTA, AND MICHAEL HILTNER, OF BISMARCK, NORTH DAKOTA.

SEAL-LOCK.

1,028,834.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed February 12, 1912. Serial No. 676,953.

To all whom it may concern:

Be it known that I, ALFRED WOOLEN, a citizen of the United States, residing at Grove, in the county of Burleigh and State of North Dakota, have invented a new and useful Seal-Lock, of which the following is a specification.

This invention relates to seal locks for car doors and other closures, the same being more particularly an improvement upon the structure disclosed in an application filed by me on August 21, 1911, said application bearing Serial No. 645,101.

One of the objects of the invention is to provide a seal lock which can be readily applied to a door or the like and which is primarily designed for use in connection with a hasp such as commonly employed, there being a locking bolt of novel form for engaging the keeper of the hasp and which includes means for engaging a sealing ring whereby withdrawal of the bolt from engagement with the keeper is rendered impossible unless said ring is broken.

A further object is to provide improved means for holding the ring in engagement with the bolt.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a front elevation of the seal lock constituting the present invention, a portion of the hasp, and its keeper being shown. Fig. 2 is a side elevation of the parts shown in Fig. 1. Fig. 3 is a central longitudinal section through the body portion of the bolt, the plunger being removed. Fig. 4 is a perspective view of the plunger. Fig. 5 is an enlarged side elevation of a portion of the plunger and showing the ring receiving slot. Fig. 6 is an enlarged section on line A—B Fig. 2. Fig. 7 is a section on line C—D Fig. 1. Fig. 8 is a view showing in detail, the appearance of a portion of the sealing ring at different

stages in the operation of locking it to the device constituting the present invention.

Referring to the figures by characters of reference 1 designates an elongated attaching plate adapted to be secured to the door or other closure with which the seal is to be used, this plate being provided with an outstanding staple-like keeper 2 located adjacent one end while a boss 3 is preferably extended outwardly from the other end portion of the plate 1. This boss has a central stud 4 outstanding therefrom and provided with a head 5. Said stud projects through a slot 6 formed longitudinally within a plate 7 constituting the body portion of the bolt, each longitudinal wall of the slot 6 being provided, along its two edges, with rabbets 8 and 9 respectively. The head 5 is adapted to work within the rabbet 9 and thus lies flush or substantially flush with the outer face of the plate 7. The upper end of the plate 7 is reduced in width so as to form a finger 10 having an outstanding projection 11 whereby the said plate can be readily shifted relative to the attaching plate 1. It is to be understood of course that the boss 3 constitutes a bearing for the plate 7 and said plate cannot only slide upon the boss with the stud 4 as a guide, but can also be swung upon the stud 4.

That end portion of the plate 7 remote from the finger 10, is reduced transversely to form a tongue 12 provided with a tubular end portion 13. A curved slot 14 extends into the upper portion of the tubular extension 13 and thence downwardly, as clearly indicated in Figs. 2 and 3, the downwardly extending portions of the slot being located within diametrically opposed portions of the extension 13. This slot is of sufficient width to receive, readily, the sealing ring 15 to be used in connection with the structure. The lower ends of the rabbets 9 merge into a longitudinal channel 16 formed in the tongue 12 and which opens into the tubular extension 13.

A plunger 17 is mounted to slide on the plate 7 and has a stud 18 projecting therefrom and into the slot 6, this stud being formed with a head 19 adapted to travel within rabbet 8. A handle or grip 20 extends from one end of the plunger 17 and the upper end portion of the plunger is so shaped as to fit snugly within the tubular

extension 13. A plate 21 is preferably riveted or otherwise secured to the back face of the plunger 17 and is adapted to slide within the channel 16 and also within the
 5 rabbet 9. This plate extends outwardly beyond the inner face of the plunger 17 and terminates, at its free end, in a deflecting tongue 22 which overhangs a recess 23
 10 formed in the back face of the plunger. The end walls of this recess 23 are preferably beveled and undercut so as to diverge, as shown at 24 and 25 respectively and the
 15 end of the tongue 22 overhangs the end wall 25 of the recess 23 and is preferably beveled, as shown at 26 so as to deflect into recess 23 the sealing ring 15 contacted by said beveled
 20 end. It will be noted that the end of the plunger 17 is beveled, as at 27 and that stop shoulders 28 extend from the plunger so as to abut against the tubular extension 13 and thus limit the movement of the plunger in one direction into said extension.

When it is desired to use the seal lock, the bolt is withdrawn bodily from the keeper 2
 25 by shifting the body 7 along the guide stud 4. The hasp 29 or other element to be secured is then placed in engagement with the keeper 2 after which the bolt is directed into the keeper. Plunger 17 is then shifted so
 30 as to withdraw it from the tubular extension 13 after which the sealing ring 15, which can be formed of any suitable material such as sheet metal, wire or the like, is inserted into the curved slot 14 until it rests
 35 upon the lower ends of the slot. That portion of the sealing ring extending transversely within the extension 13 is thus supported in the path of the beveled end 27 of the plunger. Thus it will be seen that
 40 when the plunger is shifted into the tubular extension 13, the seal will be bent back by the beveled end 27 so as to permit said end to pass the seal. The beveled end 26 of tongue 22 then comes against the seal and
 45 deflects it into the recess 23, thereby removing from the seal the crimp produced therein during the deflection of the seal by the beveled end 27. The seal thus becomes
 50 straightened out within the recess 23 and obviously it will be impossible to withdraw the plunger 17 from extension 13 because the wall 25 of recess 23 will engage the seal and prevent it from leaving the recess 23. Inasmuch as it is thus impossible to disengage the plunger 17 from the seal, and as
 55 that portion of the seal engaged by the plunger cannot be distorted so as to be withdrawn from the recess 23, it will be apparent that the bolt cannot be disengaged
 60 from keeper 2 unless the ring 15 is broken.

In order that the action of the plunger upon the sealing ring may perhaps be better understood, attention is called to Fig. 8. That portion of the ring indicated at *a* in
 65 this figure is the part of the ring which en-

ters the slot 14 and as it appears prior to the engagement of the plunger therewith. At *b* the same portion of the ring has been shown distorted, as by the beveled end 27 pushing thereagainst. This distorted portion is thus brought into the path of the
 70 beveled end of tongue 22. At *c* in Fig. 8, the ring is shown bent back substantially to its initial form, this being done by the tongue 22 when it presses the ring into the
 75 recess 23.

What is claimed is:—

1. In a seal lock, a sliding bolt including a tubular extension having a ring receiving slot, and recessed means movable within the
 80 extension for successively distorting the ring and deflecting said ring into the recess, the walls of the recess cooperating with the ring to hold the ring against withdrawal from the slot.

2. A seal lock including a sliding bolt, having a tubular extension, said extension being provided with a slot for the reception of a sealing element, a recessed member slidable within the extension and having means at one end for deflecting that
 90 portion of the sealing element in the path of the member, and a tongue carried by said member for engaging the sealing element to deflect it into the recess.

3. A seal lock including a sliding bolt having a tubular extension formed with a slot for the reception of a sealing element, and means slidable within the bolt for engaging and becoming permanently inter-
 100 locked with the sealing element, said sealing element cooperating with the extension and the bolt to hold said bolt against movement.

4. A seal lock including a bolt, said bolt having a tubular extension, there being a
 105 slot within the extension for receiving a sealing element and guiding it transversely of and then parallel with the longitudinal axis of the extension, and a member movable into the tubular extension in one direction
 110 for bending the sealing element out of and back into engagement with said member to hold said member against withdrawal from the tubular extension.

5. A seal lock including a bolt, having a
 115 tubular extension provided with a slot for the reception of a sealing element, and a recessed member slidable into the extension between the receiving portion and the end portions of the slot, said member being movable in one direction to prevent withdrawal
 120 of the sealing element through the slot and to become interlocked with said element, said sealing element, when engaged by the bolt, constituting means for holding the bolt
 125 against movement.

6. A seal lock including a bolt having a tubular extension, there being a slot within the extension for the reception of a sealing element, a slidable member movable into
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the extension between the sealing element and that portion of the slot which is open to receive the sealing element, and means carried by said member for successively bending the sealing element to permanently interlock it with said member.

7. A seal lock including a bolt having a tubular extension, there being a slot within the extension for the reception of a sealing element, a plunger slidable into the extension between the sealing element and that portion of the slot which is open to receive

said element, there being a recess within the plunger, and separate means carried by the plunger for successively bending the sealing element out of the path of the plunger and then back into the recess in the plunger.

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

ALFRED WOOLEN.

Witnesses:

SELINA WILLSON,
JOHN D. JONES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
