No. 751,691. PATENTED FEB. 9, 1904.

W. L. SEBRING.

SEAL PADLOCK.

APPLICATION FILED AUG. 27, 1903.

NO MODEL.

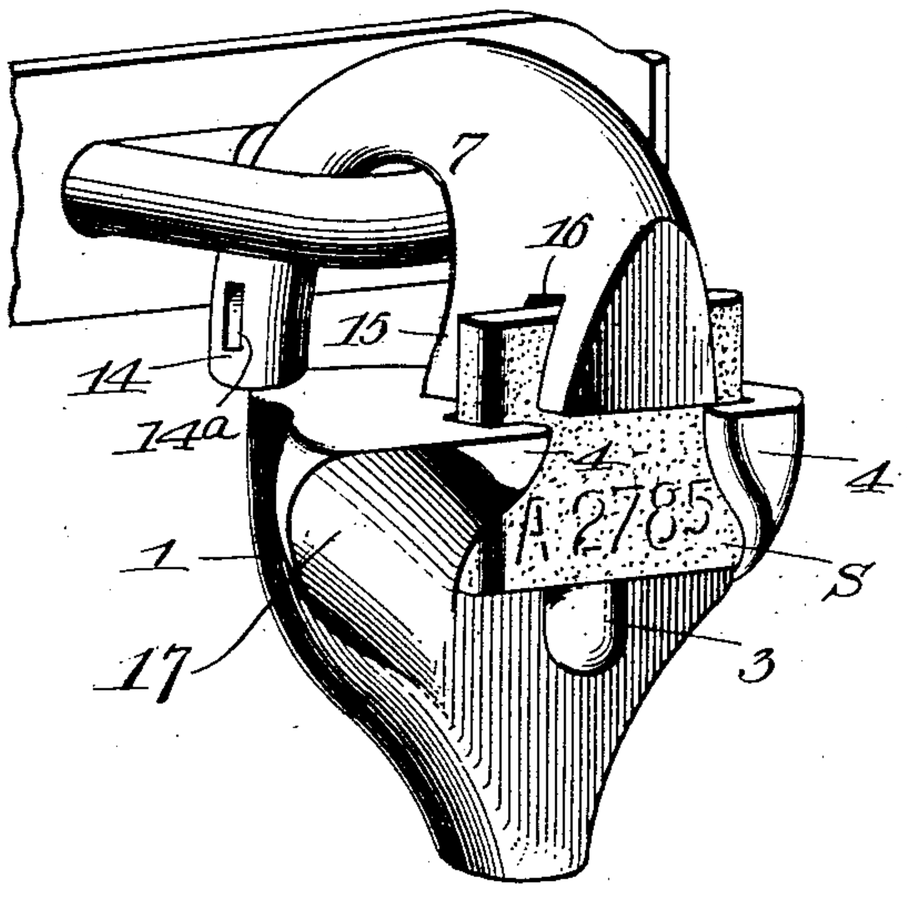

Fig. 1.

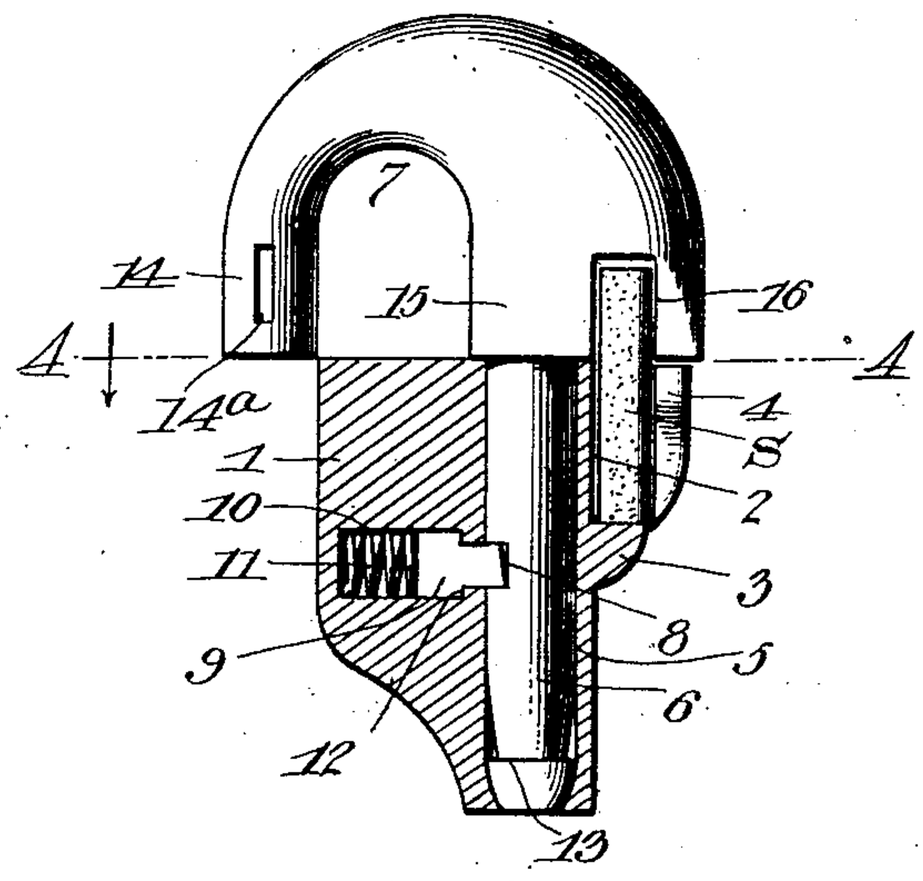

Fig. 2.

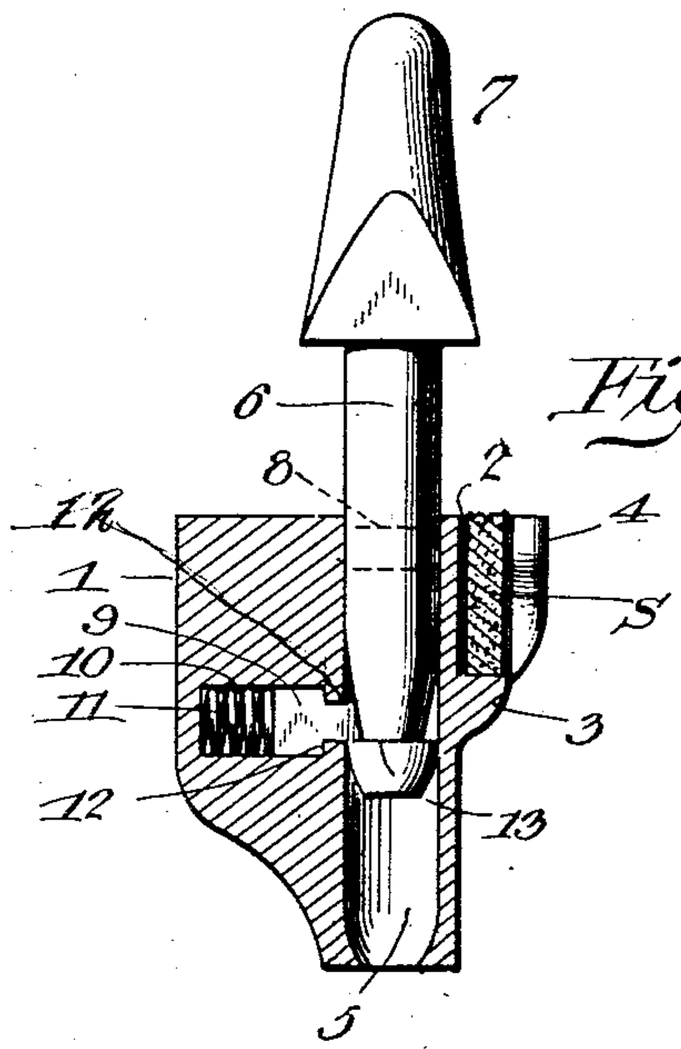

Fig. 3.

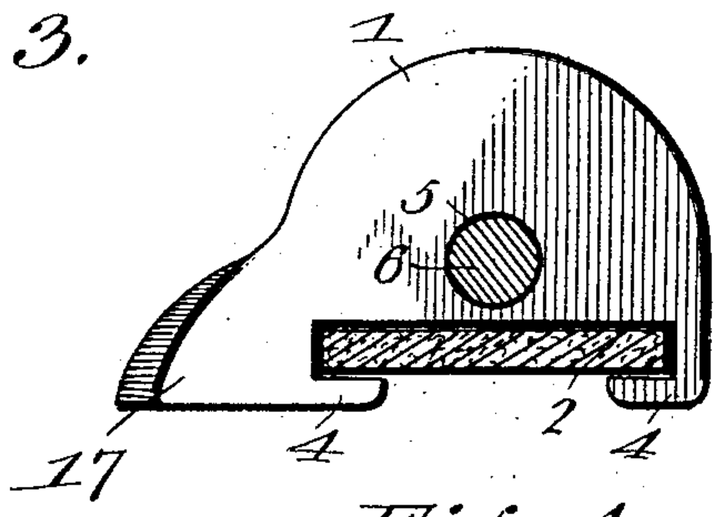

Fig. 4.

Witnesses
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No. 751,691. Patented February 9, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM L. SEBRING, OF COLORADO SPRINGS, COLORADO.

SEAL-PADLOCK.

SPECIFICATION forming part of Letters Patent No. 751,691, dated February 9, 1904.

Original application filed March 7, 1903, Serial No. 146,729. Divided and this application filed August 27, 1903. Serial No. 171,014.

(No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. SEBRING, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented a new and useful Seal-Padlock, of which the following is a specification.

This invention relates to seal-padlocks for fastening the doors of freight and other cars, and this application is a division of my prior application, Serial No. 146,729, filed March 7, 1903, upon which Letters Patent No. 732,594 were granted to me June 30, 1903.

The special objects contemplated in the present invention are to provide a seal-padlock with improved means for breaking the seal when it is desired to open the lock, to provide in a seal-padlock improved means for holding the shackle-arm in association with the body of the lock, and generally to improve the design of seal-padlocks and to simplify the construction thereof.

With the objects above stated in view the invention consists in the construction and combination of parts of a seal-padlock hereinafter described, illustrated in preferred form in the accompanying drawings, forming part of this specification, and having the novel features thereof specifically pointed out in the appended claims.

In the drawings, Figure 1 is a view in perspective, showing the lock in use upon a freight-car door provided with the usual hasp-and-staple fastening. Fig. 2 is a view, partly in vertical section and partly in elevation, showing the parts of the lock in the relation assumed when a seal is in position in a seat provided therefor upon the lock-body and the shackle is locked in position to retain the seal in the seat. Fig. 3 is a view, partly in vertical section and partly in elevation, showing the lock open with the parts in the position which they must take when a seal is to be inserted in the seat and the seal broken away at the top being shown in the seal-seat. Fig. 4 is a plan view of the portion of the lock below the line 4 4 in Fig. 2, the seal and shackle-arm which enters the lock-body being shown in section.

Referring to the drawings by reference characters, 1 designates the body of the padlock, and 2 designates the seat formed on the body portion for an ordinary frangible seal formed, preferably, of baked clay and designated by the letter S. The seat 2 comprises a lug 3, which projects from the face of the body 1 of the lock at a suitable distance below the top thereof to form the bottom of the seal-seat, and the lateral lugs 4 4, whose ends are turned inward to engage the face of the seal, as best seen in Fig. 1.

The character 5 designates an opening in the lock-body for the passage of a shackle-arm 6, at the upper end of which is secured the shackle 7. The shackle-arm 6 is provided about midway of its length with a recess 8 for the reception of a spring-pressed latch 9, mounted in a suitable guideway 10, provided in the interior of the body portion 1 of the lock. The latch 9 is beveled at its operative end to present a face across which the shackle-arm 6 may slide when the arm is forced downward into the body of the lock and is held normally forward in operative position by means of the spiral spring 11, disposed behind the latch in the guideway. The forward movement of the latch is limited by the contact of lateral projections 12 12 thereon with the end of the guideway 10, the opening at the end of the guideway for the passage of the head of the latch being only large enough to permit the passage of the head, as shown, and affording shoulders with which the lateral projections 12 12 contact to limit the forward movement of the latch and permit the operative head thereof to be held normally in such position that it will engage with the recess 8, above mentioned, or with an annular shoulder 13 at the lower end of the shackle-arm 6, but will not extend entirely across the opening 5 to prevent the introduction of the shackle-arm thereinto. The lower end of the opening 5 in the body portion of the lock is preferably constricted, as shown, to conform to the rounded end of the shackle-arm, so as to form a close contact at the bottom of the lock and prevent the entry thereinto of foreign substances.

The shackle 7 consists of an end 14, adapted to contact with the upper surface of the body

portion 1 of the lock to prevent disengagement of the shackle from a staple when placed in the position shown in Fig. 1, and the enlarged base portion 15, to which the shackle-arm 6 is joined, and which forms a shoulder that contacts with the upper surface of the body portion 1 of the lock when the shackle-arm is forced downward in the opening 5 to its full limit. The end 14 of the shackle is preferably provided at 14ª with an opening to receive a seal of wire or sheet metal. The enlarged base 15 is provided with a transverse slot 16, which is so placed that when the recess 8 in the shackle-arm 6 is engaged by the latch 9 the slot 16 will be disposed immediately above the seal-seat 2 in position to receive the upper portion of the seal S when placed in the seat.

Upon the left side of the body portion 1 of the lock is provided a thick lateral lug 17, presenting on the surface adjacent to the seal-seat a concavity of the form shown in Fig. 1 to afford a suitable surface of support for the thumb when it is desired to turn the body portion of the lock upon the shackle-arm 6 in order to fracture the seal and disengage the shackle-arm from the spring-pressed latch 9.

In using the lock described in the preceding paragraphs the shackle 7 will be first raised above the body portion of the lock as far as permitted by the shackle-arm 6 before the annular shoulder 13 at the lower end thereof is engaged by the spring-pressed latch 9. When the shackle has been raised to its uppermost position, as best shown in Fig. 3, a seal will be introduced into the seal-seat 2 and the shackle 7 will be passed through the staple of the car-door fastening, the hasp having been previously forced over the staples in the usual way. Then the shackle 7 will be forced downward toward the body portion of the lock until the slot 16 in the shackle receives the upper portion of the seal and the end 14 of the shackle comes into contact with the upper surface of the body portion of the lock. As soon as the shackle reaches this position the spring-pressed latch 9 will automatically engage with the recess 8 in the shackle-arm 6 and secure the shackle-arm against upward movement to release the shackle from the staple as long as the seal S remains unbroken in the seal-seat. When the car is to be opened, it will be necessary to break the seal by turning the shackle to an angle of substantially forty-five degrees to either side and so forcing the latch 9 back into its guideway and releasing it from engagement with the recess 8 in the shackle-arm. The shackle may then be raised until the latch is brought automatically into engagement with the annular shoulder 13, and when raised to that point the shackle may be disengaged from the staple and the door opened.

In the turning of the body portion of the lock on the shackle-arm, which will be held substantially stationary by the engagement of the shackle with the staple, considerable force may be required, and to facilitate the breaking of the seal by turning the body portion of the lock the thumb-supporting lug 17 is provided to enable the operator to secure such a grip on the lock with his right hand as will enable him without great difficulty to turn the body portion of the lock and break the seal. With the body portion of the lock as small as it is desirable to make it in order to effect the saving in material and weight it would be very difficult to obtain such a grip upon the body portion with the hand as is necessary in order to break the seal if the lug 17 were not provided; but with the lug formed on the side of the body portion and provided with the inclined concavity into which the thumb of the operator's right hand will fit exactly the body portion of the lock may be easily gripped with sufficient firmness to insure the breaking of the seal without great muscular effort.

Having thus described the construction and use of my invention, what I claim is—

1. The combination in a device of the class described, of a lock-body having an opening to receive a shackle-arm and provided on one side with a seal-seat open at the top, of a shackle provided with seal-engaging means and having a shackle-arm longitudinally and rotatably movable within the opening provided in the lock-body, said arm having a latch-receiving recess intermediate of its ends and an annular shoulder near its lower end for engagement by a latch, and a spring-pressed latch mounted in the body portion of the lock and adapted for engagement with the recess on the shackle-arm and the annular shoulder thereon.

2. The combination in a seal-padlock, of a body portion having a seal-seat open at the top and provided with an opening for the reception of a shackle-arm, a shackle having a base adapted for contact with the lock-body and provided with a slot for the reception of a seal, a shackle-arm formed integral with the shackle and rotatably and longitudinally movable in the opening provided in the lock-body, said arm having a latch-receiving recess intermediate of its ends and an annular shoulder near the lower end for engagement by a latch, and a spring-pressed latch provided in the lock-body.

3. The combination in a seal-padlock, of a body portion having a seal-seat open at the top and provided with an opening to receive a shackle-arm, a shackle having seal-engaging means and provided with a shackle-arm longitudinally and rotatably movable in the opening in the lock-body, said shackle-arm having a latch-receiving recess intermediate of its ends and an annular shoulder near the lower end for engagement by a latch, and a spring-pressed latch mounted in said body portion

and arranged for travel at right angles to said shackle-arm and having stops to limit its forward movement.

4. The combination in a seal-padlock, of a body portion having a seal-seat open at the top, an opening for the reception of a shackle-arm and a lateral lug to support the operator's thumb when opening the lock, and a shackle provided with seal-engaging means and having a shackle-arm longitudinally and rotatably movable in the opening provided in the lock-body, said shackle-arm having a latch-receiving recess intermediate of its ends and an annular shoulder near the lower end for engagement by the latch, and a spring-pressed latch mounted in the lock-body.

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

WILLIAM L. SEBRING.

Witnesses:
D. WEYAND,
L. C. FYFFE.