COMBINED LOCK AND SEAL DEVICE

Filed Oct. 26, 1950

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This invention relates to a combined lock and seal device and more particularly to a padlock having means for sealing the shackle thereof in locked position.

It is an object of my invention to provide novel means to permit sealing of a padlock shackle member in locked position with a frangible sealing member so that the said shackle may not be moved to unlocked position without first removing or destroying the seal and thereby providing indication that the lock has been tampered with by an unauthorized person.

It is a further object of my invention to provide sealing means which are highly efficient in the operation thereof and which may be incorporated in a padlock in a very inexpensive manner.

Further objects and advantages of this invention will be more clearly understood from the following description and the accompanying drawings in which:

Fig. 1 is a plan view on line 1—1 of Fig. 2.
Fig. 2 is a front view of a padlock showing my improved sealing means and the shackle member in locked position.
Fig. 3 is a similar view showing the shackle member in unlocked position.
Fig. 4 is an elevational view of a portion of the shackle member showing a modified form of construction.
Fig. 5 is a front view of a portion of the lock body further illustrating the modified form of construction.

In the embodiment illustrated in the drawings, the numeral 5 denotes the case of a padlock and 8 denotes the shackle member which is movable to locked and unlocked positions in said case and which is retained in locked position by a conventional key operated mechanism that is not shown since the construction and operation thereof is well known by those skilled in the art.

The said shackle member 8 has a short leg 7, which is engaged by a locking bolt in said mechanism to retain the shackle in locked position, and a long leg 6, which is slidable in the case 5 and retains the shackle connected thereto in both of the locked and unlocked positions.

In the padlock illustrated, the shackle is maintained and connected to the casing by means of an anchoring pin 9 in the case which extends across an elongated notch 10, in the side of the long leg 8 of the shackle, so as to limit the movement of the shackle to its unlocked position and prevent separation thereof from the case 5. At the lower end of the notch 10, there is provided a groove 11 which extends around the long leg and merges with the notch 10 so as to receive the pin 9 and allow the shackle to be rotated when in its unlocked position to permit use of the lock.

My present invention is particularly directed to the provision of means whereby a lock such as herein described may be sealed in its locked position with a frangible sealing member so that the shackle member may not be moved to its unlocked position without the sealing member first having been removed or damaged. Such sealing means preferably comprise a groove 11, or other suitable opening, which extends through the body 5 and across the opening 13 in said case in which the long leg of the shackle is contained, and a slot 14 which extends through said shackle and is in alignment with the slot 12 so as to provide a through opening that extends entirely through the case and shackle when the said shackle is in its locked position. As illustrated in Fig. 2, the said through opening will receive a ribbon-like frangible sealing member 15.

When the lock is thus sealed, the sealing member will connect the shackle to the case so that the said shackle cannot be moved without breaking or greatly damaging the sealing member and thereby providing indication of tampering by an unauthorized person.

If desired, a hole 16 may be provided through the case 5, in alignment with the groove 11 of the long leg of the shackle when the said shackle is in its locked position. This will permit the user to choose between a wire-like seal and the ribbon-like seal 16 or, if desired, both types of seals may be used for additional security.

In order to facilitate the manufacture and thereby reduce the cost of providing the sealing means, the case and shackle may be constructed as illustrated in Figs. 4 and 5, wherein notches 16—a and 12—a are provided, instead of the slots 14 and 12, and said notches will operate fully as well as the slots.

It will be understood that if desired, round holes may be extended through the case and shackle, instead of said slots 12 and 14, and a frangible wire sealing member may be used there-through instead of the ribbon-like member 15.
I claim:

A padlock comprising a case having parallel openings therein, a substantially U-shaped shackle member having a short leg and a long leg slidable in said openings, and sealing means including a notch extending across the inner side of the long leg of the shackle and a notch extending into the side of the case and overlapping the notch in the long leg of the shackle; the overlapping portions of said notches providing an opening which extends through the said case and shackle and is adapted to receive a sealing member, when the shackle is in locked position, and thereby prevent movement of said shackle to its unlocked position.

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