

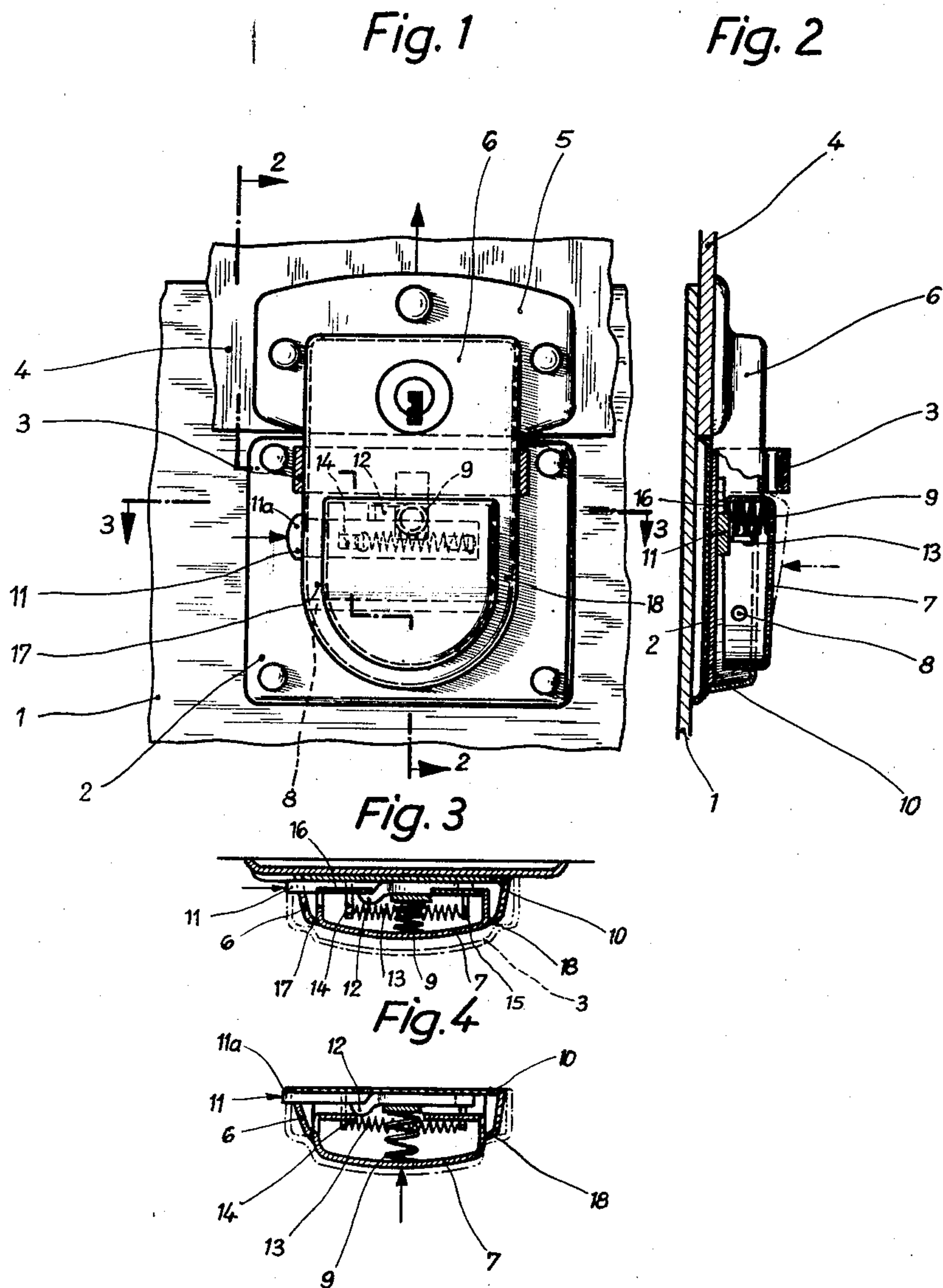
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LOCKS FOR LEATHER BAGS, TRUNKS AND THE LIKE

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LOCKS FOR LEATHER BAGS, TRUNKS AND THE LIKE

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This invention relates to locks for leather bags, trunks and the like of the kind which have swinging closing pieces to be interlocked with bridges. Such locks comprise, as is known in the art, a lower portion provided with a bridge and an upper portion provided with a swinging latch being capable of sliding through the bridge and being interlocked with it. To open a case provided with such a lock the latch must be pressed and held down when slid through the bridge. This renders handling difficult, in particular when two locks, for instance of a trunk, are disposed far apart.

To simplify the use of such lock I provide a sliding bolt or the like for fixing the closing piece in its lowermost position. In this way it is possible first to press down the latches of a trunk and then to open the trunk lid without having to hold them down.

The sliding bolt may according to my invention be influenced by a spring and may by means of a nose or the like engage with a bent loop on the bottom of the latch thus retaining the latch in its lowermost position. To bring again the latch automatically into its locking position when slid through the bridge the bolt projects according to a preferred embodiment of my invention from one side of the lock housing so as to be automatically displaced when the lock moves through the bridge. The latch is then no longer retained by the bolt and after having passed the bridge is brought by means of a compression spring into its closing position.

According to still another embodiment of my invention the bridge is off-set upwardly so as to avoid causing the latch to be forced into its lowermost position where it would be bolted. After sliding the upper portion of the lock through the bridge, therefore, the latch will always spring back to its locking position.

The bolt and the base plate of the housing may be provided with pins or bent loops with a helical spring between serving to draw the bolt aside.

Further objects and advantages of the present invention will be apparent from the following description, reference being made to the accompanying drawings wherein a preferred embodiment of the present invention is clearly shown.

Figure 1 is a plan view of a lock in accordance with the invention,

Figure 2 is a cross section taken on the line 2—2 of Figure 1,

Figure 3 is a cross section taken on the line 3—3 of Figure 1 with the closing piece pressed down,

Figure 4 is a cross section similar to Figure 3, but showing the closing piece lifted.

The portion 1 of a case, for example a trunk, is provided with a lower lock portion 2 carrying a bridge 3. The upper portion 4 of the case carries the upper lock portion or latching member 5 with the lock housing 6 provided in a known manner with a latch 7 swinging about the axis of a pivot shaft 8 and being by means of a compression spring 9 lifted to its outer or locking position. Said upper lock portion 5 is slid through the bridge

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3, and locks the case as its latch 7 with its front surface engages the bridge 3, as shown in broken lines in Figure 2. The latch may be locked in its locking position by means of a key in conventional manner, for instance as disclosed in Patent No. 1,732,408.

To retain said latch 7 in its lowermost or inner position, a sliding bolt 11 is disposed on the base plate 10 of the lock, said sliding bolt having a nose 12 and being drawn to the left side by means of a spring 13 (Figures 3 and 4). Said spring 13 is stretched between a bent loop 14 of the base plate 10 and a loop 15 of the sliding bolt 11. When the latch 7 is pressed down, the nose 12 of the sliding bolt 11 engages with a bent loop 16 that is formed on the latch 7 and retains it in its lowest position against the action of the spring 9, as shown in Figure 3.

The sliding bolt 11 projects from the lock housing for example on the left side, the projecting end 11a being rounded off as shown in Figure 1. When the lock is passed under the bridge with the latch 7 pressed down the projecting end 11a of the bolt 11 touches the bridge 3, and thereby is shifted to the right side so that the nose 12 no longer bolts the latch 7 and in turn, the latch 7 is released and resumes its normal locking position against the bridge (shown in broken lines in Figure 2).

To prevent the latch 7, when locking the trunk or the like, from going down to its lowermost position and thus be locked by the nose 12 the bridge 3, as shown in broken lines in Figure 3, is off-set to extend upwardly so that the closing piece on passing the bridge is pressed down to a passing position, namely only to such a degree as is absolutely required for closing, but not so far as to reach the said inner position in which it would be bolted. The lateral parts 17 and 18 of the lock housing 6 are guided through the non-offset portion of the bridge 3.

When however the latch 7 has been pressed down into its inner position the bolting is released when the upper lock portion passes through the bridge, as the bolt 11 is then shifted to the right owing to the impact between the end 11a and the bridge 3 so that the latch 7 is released upwardly and thus can resume its normal locking position.

According to the invention it is no longer necessary for the latch 7 to be held in its lowest position when opening the trunk or the like, as the latch automatically retains its inner position after it has been pressed down and thereby the nose 12 has been interlocked with the loop 16, this position being maintained owing to the force exerted by the spring 13.

What I claim is:

1. In a locking device, for use in releasably fastening two separable parts, in combination, a structure including a bridge mounted on one of said parts and defining a passage, a latching member mounted on the other part and being insertable into and movable in said passage in opposite closing and opening directions, a latch pivotably mounted on said member and tiltable between inner and outer positions, resilient means biasing said latch towards said outer position, said bridge being so stationed that during movement of said member in said passage in either direction said bridge is clear of the path of said latch positioned in said inner position and, respectively, said bridge is disposed in the path of said latch positioned in said outer position and adapted to depress said latch during bolt movement in the closing direction from said outer position to a passing position between said outer and inner positions and, respectively, adapted to engage said latch to restrain opening movement after said latch has been moved in the closing direction past said bridge and been returned by said resilient means from said passing position to said outer position, releasable locking means operable for locking said latch in said inner position for movement of said member in said pas-

sage free from contact with said bridge, and means actuable for releasing said locking means.

2. In a locking device, as claimed in claim 1, said locking means and said releasing means comprising a slidable member movable perpendicularly of said directions of passing of said latch between extended and retracted stations respectively, a spring actuable for urging said slidable member towards said extended station, oppositely disposed elements connected to said bridge and operable for guiding said latch during the passing past said bridge, a hook formed on said slidable member, a portion formed on the interior of said latch and operable to be engaged in said inner position of said latch by said hook in the extended station of said slidable member for locking said latch in said inner position and, respectively, to be disengaged when said slidable member is in said retracted station for release of said latch, and an extension formed on said slidable member and projecting to the exterior of said latch and having an outwardly curved outer surface, one of said guiding elements being disposed in the path of said extension during latch passing past said bridge, whereby in either passing direction the curved surface of said extension will engage said element to force said slidable member into the retracted station for release of the locking engagement between said hook and portion, said hook and said portion having surfaces inclined relative to the plane of latch movement during tilting thereof and operable for sliding engagement when said latch is manually pressed into said inner position, whereby said hook will be moved towards said retracted station to clear said portion and subsequently will be moved by the force of said spring to engage said portion to lock it for locking said latch in said inner position.

3. A locking device for releasably locking a movable member on another member, comprising a bridge fixed on the said other member and a structure attached to the said movable member, the said structure comprising a base fixed on the said movable member, a latch pivotally mounted on the said base and being tiltable between an extreme outer engaging position wherein following passage past said bridge it will engage said bridge so as to prevent return of the said structure and, respectively, an extreme inner sliding position wherein the said latch may slide past the said bridge in either passage direction, a resilient means adapted to urge the said latch into said

extreme outer engaging position, locking means attached to the said base and to the said latch respectively and adapted to hold the said latch releasably in said extreme inner sliding position, and releasing means actuable for disengaging said locking means and thereby releasing said latch for tilting from said extreme inner sliding position into said extreme outer engaging position.

4. A locking device as claimed in claim 3, the bridge having a central outwardly vaulted portion, its width being greater than the width of the latch but lesser than the width of the base, the said portion being adapted to pass said latch past the said bridge in either direction when in a sliding position ranging between said extreme inner sliding position and a passing position spaced therefrom, the positioning of said latch into said passing position being automatically effected in closing direction by the said bridge and, respectively, being effected by hand in the opposite direction, the said portion being further adapted to restrain a return of the said latch in opening direction when the latter is in the said extreme outer engaging position.

5. A locking device as claimed in claim 3, said base having side portions, said bridge having lateral guide-members and being adapted to engage slidably said side portions of the said base when the latter is passed in either direction past the said bridge.

6. A locking device as claimed in claim 3, a bolt slidably mounted on the base, a spring adapted to move the said bolt into a locking position, at which an outer end of the said bolt protrudes sidewardly from the said base, a nose on the said bolt and an arcuate loop formed on the latch, the said nose and the said loop being adapted to engage each other at the said locking position of the said bolt thereby holding the said latch in said extreme inner sliding position and being adapted to be disengaged when the said bolt is pushed inwardly against the force of the said spring and the bridge being adapted to disengage the said nose and the said loop from each other when the said base is passed in either direction past the said bridge.

References Cited in the file of this patent

UNITED STATES PATENTS

701,966	Thornton	June 10, 1902
1,732,408	Lewis et al.	Oct. 22, 1929