LOCKS FOR SUITCASES AND LIKE ARTICLES OF LUGGAGE


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1 Claim

ABSTRACT OF THE DISCLOSURE

A key operated lock for articles of luggage having three degrees of security, with one part of the luggage pivotally and slidably mounting a key operated spring biased cover having a peripheral skirt. The cover when pivoted to a closed position snap-engages with a keeper part to close the luggage to provide the first degree of security. The skirt also carries a tab which projects inwardly, and when the cover is slid laterally the tab engages a slot in the keeper preventing pivoting and opening of the cover providing the second degree of security. The cover may be locked by inserting a key in the cover and turning a key operated part which engages with a slot in the keeper providing the third degree of security.

This invention relates to locks for suitcases and like articles of luggage.

In accordance with the invention a lock for a suitcase or like article of luggage comprises two separable parts consisting of a keeper and a hasp, the latter being mounted on an attachment bracket and arranged for both pivotal and sliding movement upon the bracket, the hasp being spring-urged to a position in which it may engage the keeper for snap-engagement therewith to provide a first degree of security, the hasp being slidable when so engaged to provide a further degree of security, and having lock means for providing yet a third degree of security.

Hence when fitted to a suitcase the lid of the latter may be slammed shut and the hasp (or hasps since usually a suitcase will be provided with two locks, one at each end of the body) will snap-engage with the keeper to provide the first degree of security; usually the hasp will be slid and the key-operated lock will be actuated to provide the second and third degree of security, but should the key be lost whilst the lock is in the unlocked position relative security at least against accidental opening of the suitcase may be provided, by utilising the second degree of security afforded by the sliding movement of the hasp.

The first degree of security, namely engagement of the hasp with the keeper, may be provided by making the hasp as a shallow open-topped box which can wholly embrace the keeper and is cammed to clear the keeper during closing movement of the suitcase lid, the cam action being irreversible or over-ridden so that the action does not operate in the reverse direction and opening of the suitcase lid without first manually hinging the hasp against the spring action to free it from the keeper is impossible.

The second degree of security may be provided by providing a slot in one end of the keeper so that when the hasp is engaged with the keeper a lug on the hasp may be slid into said aperture by sliding the hasp along the length of its pivotal axis.

The third degree of security may be provided by a key-operated lock including a locking member carried by the hasp and rotatable with the key so that the member engages behind a portion of the keeper when the key is turned.

To prevent inadvertent rotation of the key-operated member, for example when subjected to vibration, the said member may snap-engage with its housing in the hasp in both the locked and unlocked position, being free in intermediate positions. Similarly to prevent inadvertent movement of the hasp along its sliding axis the keeper and the hasp may have co-operating members which snap-engage with one another during said sliding movement.

One preferred embodiment of the invention will now be more particularly described with reference to the accompanying drawings, wherein:

FIG. 1 is a perspective view of a suitcase lock;
FIG. 2 is another perspective view showing part of the lock in an opened position;
FIG. 3 shows another part of the lock again in perspective;
FIG. 4 is a rear elevation;
FIG. 5 is a section on the line 5-5 of FIG. 4; and
FIG. 6 is a front elevation in the open position, and partly broken away.

In this lock shown in the drawings the attachment plate comprises a plate adapted to be fastened to the lid of the suitcase and having upturned lugs 11 at each end which are aperture to accommodate a rod 12 for both sliding and pivotal movement of the rod relative to the lugs. Between its ends the plate is gapped at 13 to accommodate the nose 14 of the keeper 15 and guiding the latter into the desired alignment with the attachment plate during closing of the suitcase lid (not shown).

The hasp comprises a shallow open-topped metal pressing 16 having a base and a peripheral skirt comprising side and end walls. The rod 12 extends parallel to the one side wall and through apertures in the end walls and is riveted over at its ends and the rod thereby retains the two parts (16 and 10) together to permit relative sliding and pivotal movement. A torsion spring 17 is wound about the rod and has oppositely projecting tails one of which is engaged with a tab 18 on the attachment plate and the other with the hasp so as to spring urge the latter to a position (shown in FIGS. 1 and 5) in which the hasp overlies and surrounds the attachment plate and similarly in which it may overlie, surround and embrace the keeper when in the appropriate spaced position.

A liner 19 is secured within the base of the hasp by a system of tabs 20, 21, struck out of the hasp, and between the liner and the hasp base is located and journaled a locking disc 22 which is registered with a key-hole 23 in the hasp base. The locking disc has a nose 24 which projects both axially i.e. normal to the base of the hasp and also laterally, i.e. parallel to the base of the hasp for engagement in a slot 25 in the keeper. The latter slot is dimensioned to enable the nose to fit into the slot when the locking disc is in one position but rotation of the disc through substantially 180° into the illustrated position by key-turning engages the nose behind a wall of the keeper so as to prevent pivotal movement of the hasp (from the FIG. 1 to the FIG. 2 position) upon the attachment plate.

One end wall of the hasp has a tab 21 projecting parallel with the base of the hasp to engage in a slot 26 in the keeper to provide the second degree of security as aforesaid and said tab also co-operates in retaining the liner within the hasp. The liner has a projection in the form of a domed ridge 27 which is located so as to be on one side of a similar ridge 26 on the keeper when the hasp is in one extreme position on the attachment plate and be on the opposite side of such ridge when the hasp is slid to the other extreme position on the attachment plate. Hence in sliding the hasp to engage the lug thereon in the slot in the end of the keeper one projection is taken to the opposite side of the other projection. In the latter position the hasp is locked inasmuch as pivotal movement is prevented although no key is used.

The keeper comprises a shallow box comprising a base, side and end walls one of which is shaped to provide the said nose for entering the gap in the attachment plate
and this nose is contoured transversely of the length of
the side wall at 30 FIG. 5 to co-operate with the adjacent
side wall of the hasp so that in a closing movement of
the suitcase lid a camming action is exerted which hinges
the hasp against the torsion spring and thus enables the
hasp to clear the keeper before snapping home embracing
the keeper.

It will be seen that when the suitcase lid is closed upon
the suitcase body, the hasp is cammed outwardly and then
returned by the spring so that there is a degree of security
provided by the hasp enclosing the keeper; the second
degree of security is provided by sliding the hasp to en-
geage slot 21 in gap 26. The third degree of security is
provided by key operating the locking disc 22 to engage
in the keeper.

Although the lock described is made of metal pressings
it could equally well be made, for example of die-castings.
I claim:

1. A lock comprising a hasp including:
(i) an attachment bracket adapted to be fixed to one
part of an article of luggage,
(ii) a cover having a peripheral skirt,
(iii) means mounting the cover to the attachment
bracket in a manner permitting the cover to pivot
relative to the bracket and also slide relative to the
bracket,
(iv) spring means urging the cover inwardly to a posi-
tion enclosing said bracket and resisting pivotal move-
ment of the cover,
(v) a key-turnable part mounted in said cover and
provided with a locking nose,
(vi) a tab projecting inwardly from said peripheral skirt
of the cover; and a keeper provided with,
(vii) means for attaching the keeper to a second part
of an article of luggage, which second part is movable
towards and away from the first part in opening and
closing the luggage,
(viii) a camming nose on said keeper arranged to en-
counter said peripheral skirt of the cover when said
parts are moved towards the closed position and
causing said cover to pivot outwardly against said
spring means and allowing the keeper to be positioned
inside the peripheral skirt and permitting the cover to
be spring returned inwardly to enclose the keeper,
(ix) a slot adapted to receive said tab when the cover
encloses the keeper and is slid as aforesaid, and
(x) a slot to receive said key-turnable part and having
a wall to engage said locking nose when key-turned.

References Cited
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