J. DEMBICZAK.

TRUNK LOCK.

APPLICATION FILED JULY 17, 1918.

1,287,652.

Patented Dec. 17, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

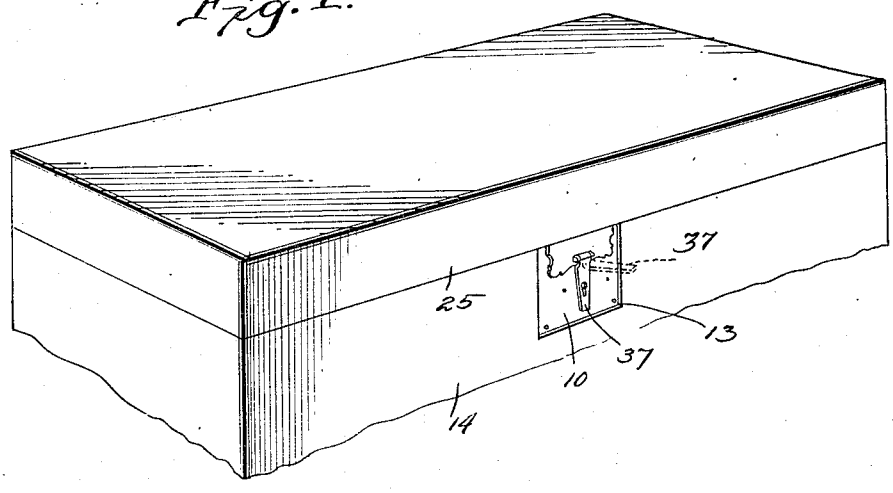
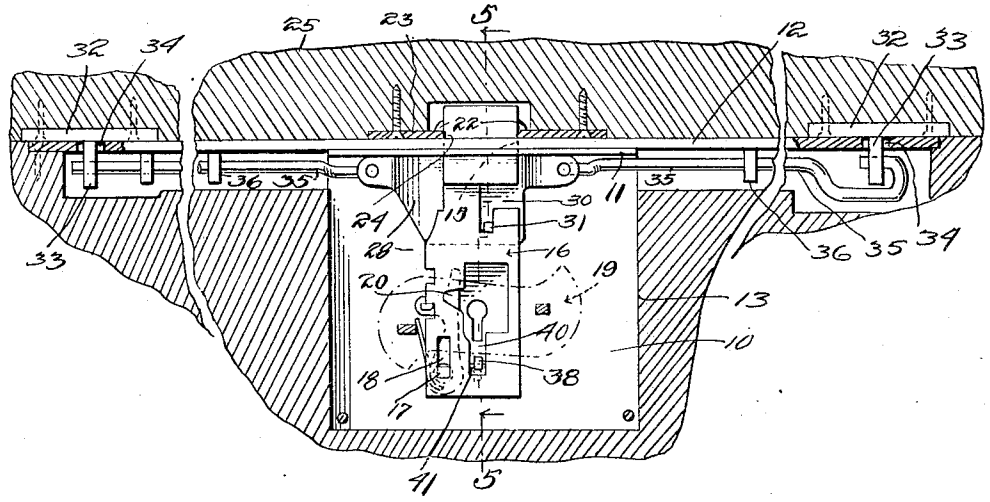


Fig. 2.



Witnesses

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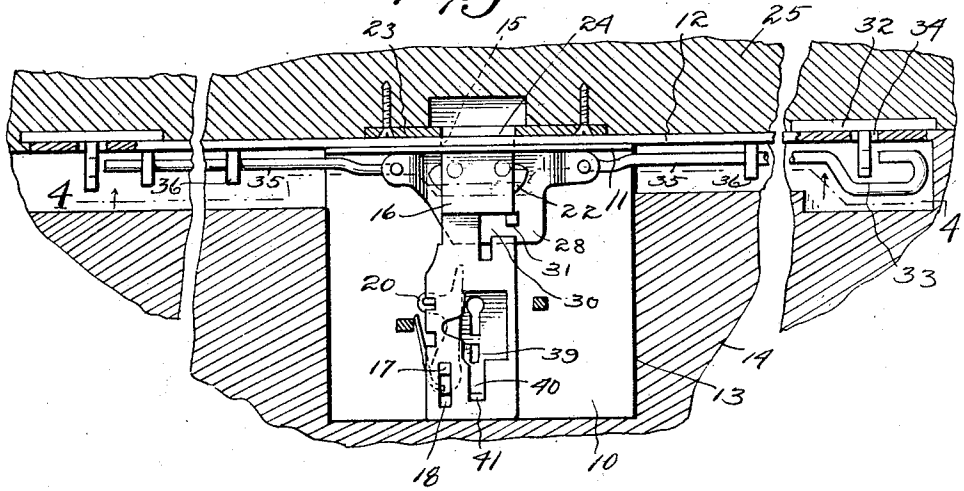
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2 SHEETS—SHEET 2.

Fig. 3.



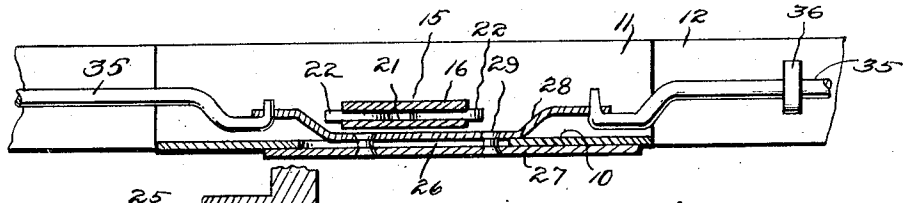


Fig. 4.

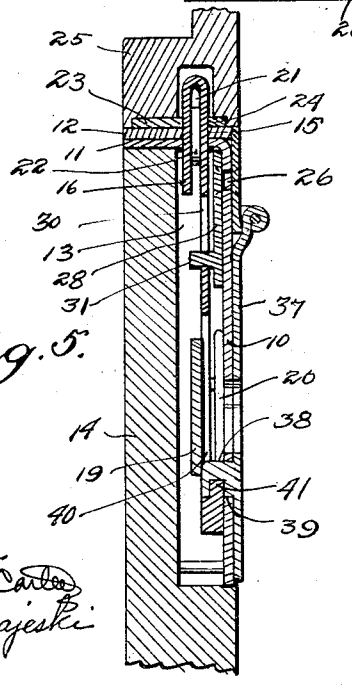


Fig. 5.

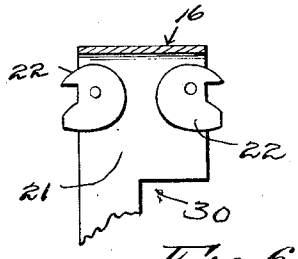


Fig. 6.

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TRUNK-LOCK.

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Application filed July 17, 1918. Serial No. 245,379.

To all whom it may concern:

Be it known that I, JOZEF DEMBICZAK, a subject of the Emperor of Austria, residing at Wallingford, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Trunk-Locks, of which the following is a specification.

This invention relates to locks and has special reference to a trunk lock such as is used on trunks and boxes wherein the top is hinged to the body of the trunk and the free edge of the hinged top is locked to the front of the body. The device may also be used in connection with any articles of this sort such as chests and satchels.

In ordinary construction of trunks and the like, it is customary to put a lock, usually with a hasp, in the center of the front of the chest or trunk and near each corner of the front there is an additional latch. Thus to lock the trunk requires three operations, first the trunk is closed and the latches are successively thrown and finally the hasp is closed and locked in closed position.

One important object of the invention is to provide an improved and simplified construction for devices of this character wherein the latching of each end of the top will be accomplished by the act of closing the hasp.

It is a well known fact that most of the locks used on trunks are capable of being picked with a considerable degree of facility since the keys are usually of a very simple character.

A second important object of the invention is to provide an improved and novel construction of lock wherein, even though the lock be picked so that the hasp can open, further manipulation will be required to disengage the latch members adjacent the corners of the trunk, the manner of the manipulation being hidden so that a person not knowing the method of opening the trunk will experience a very considerable degree of difficulty in manipulating the device even after the hasp has been unlocked.

With the above and other objects in view, as will be hereinafter apparent the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawing, and specifically claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—

Figure 1 is a perspective view of the upper part of a chest or trunk showing the same in closed position.

Fig. 2 is a vertical section through a portion of the front wall and top of a trunk showing the device in position thereon certain parts of the device being sectioned and others being removed in order to better show the construction.

Fig. 3 is a view similar to Fig. 2 but with the parts in unlocked position.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is a section on the line 5—5 of Fig. 2.

Fig. 6 is a detail section through the upper part of a locking bolt used herewith.

In the embodiment of the invention herein illustrated there is provided a base plate 10 having at its upper edge a flange 11 to which is fixedly secured a keeper plate 12. This base plate and keeper plate are sunk in the usual mortise 13 in the front wall 14 of a trunk. At the center of the keeper plate and in a corresponding position in the flange 11 is an opening 15 so arranged that a locking bolt 16 may slide vertically therethrough, the locking bolt being guided for vertical movement by a lug 17 on the base 10, the lug working in the slot 18 formed in the bolt 16. The bolt is furthermore held in position by a cover plate 19 the outline of which is indicated in dotted lines in Fig. 2. This bolt is held from vertical movement by one or more tumblers 20 of the usual key operated type, it not being necessary to go into a detail description of this feature of the device as any desired form of key control may be used to prevent vertical movement of the bolt 16 without the use of the proper key. The upper end of the bolt 16 is provided with a slot 21 wherein are located pivotally mounted tumblers 22 which are so arranged that when the bolt is raised upward the lower ends of these tumblers engage against the underside of the flange 11 and thrust the upper ends of the tumblers outward as shown in Fig. 2. These upper tumbler ends are arranged, when thrust outward, to engage above a keeper plate 23 provided with a suitable opening 24 through which passes the bolt 16 when in locked position, the keeper plate

being carried by the front wall 25 of the trunk lid. Adjacent the flange 11 the base plate 10 is provided with a transverse slot 26 and on one side of this base plate is mounted a plate 27 which is connected to a similar sliding plate 28 on the opposite side of the base plate by rivets 29 which pass through the slots 26. Thus the two plates 27 and 28 may move transversely of the bolt 16, the two together forming what is hereinafter termed "a sliding plate." In the bolt 16 is formed an L-shaped slot 30 while on the inner member of the sliding plate is a lug 31 which, when the bolt is in locking position lies within the slot 30 in such position that the sliding plate can not be moved to the right or left. However, when the bolt is moved to unlocking position as in Fig. 3, it will be seen that the lug 31 lies in the open or horizontal limb of the slots so that the plate may move to the right as shown in said figure.

Mounted on the lid also are plates 32 which are provided with eye lugs 33 which project through openings 34 in the keeper plate 12 when the receptacle is closed. Connected to the sliding plate are locking rods 35 which pass through guides 36 and are so arranged that when the sliding plate is moved into the position shown in Fig. 2 the locking rods will engage the eyes of the eye-lugs and thus hold the lid in closed position. It is to be understood that these rods and the plates 32 are all concealed from view in suitable mortises so that the casual operator of the device can not understand how to release the lids. In order further to hold the sliding plate against lateral movement and also to provide a handle for moving said plate there is hinged to the outer member 27 of the plate a hasp 37 having adjacent its lower end and on its underside a hook lug 38 which passes through an opening 39 in the base plate 10 and into a slot 40 in the sliding bolt. At one end of this slot 40 there is a lip 41 which, when the locking bolt 16 is moved upward, engages the hook lug 38 as shown in Fig. 5. It is to be observed that while this hasp, in itself, would prevent lateral movement of the sliding plate it might happen that the hasp would not be properly closed in locking the device thus, without the provision of the lug 31 and slot 30 the sliding plate might be moved even with the bolt locked.

In operation with the trunk open and the parts as shown in Fig. 3 the trunk is first closed and then the hasp is grasped and the sliding plate moved to the left until it assumes the position shown in Fig. 2. This locks the latches at the ends of the trunk. Thereupon, the hasp is forced downward against the base plate and the key inserted and turned. This throws the bolt 16 upward and locks the hasp from swinging movement and at the same time through the medium of the slot 30 and lug 31 locks the sliding plate from movement. In opening the trunk it will be obvious that the bolt is first retracted and then the hasp raised and moved to the right thus effecting all of the parts.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that many minor changes may be made in the form and construction of the invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described but it is wished to include all such as properly come within the scope claimed.

Having thus described the invention, what is claimed as new, is:—

1. In a lock of the class described, a keeper plate having spaced openings, a base plate carrying said keeper plate, a key controlled locking bolt mounted to slide on the base plate and projectable through one of the openings of the keeper plate, a second keeper pate having an opening for the reception of said locking bolt, a plurality of plates having eye lugs projectable through the remaining openings in the keeper plate, a sliding plate mounted on the base plate to slide transversely of the locking bolts, locking bars carried by the sliding plate and engageable by movement of the sliding plate through the eyes upon projection of the latter through the keeper plate openings, a hasp hinged to said sliding member to swing toward and from the base plate, and coöperating means on the bolt and hasp to to lock the latter against swinging movement.

2. In a lock of the class described, a keeper plate having spaced openings, a base plate carrying said keeper plate, a key controlled locking bolt mounted to slide on the base plate and projectable through one of the openings of the keeper plate, a second keeper plate having an opening for the reception of said locking bolt, a plurality of plates having eye lugs projectable through the remaining openings in the keeper plate, a sliding plate mounted on the base plate to slide transversely of the locking bolts, locking bars carried by the sliding plate and engageable by movement of the sliding plate through the eyes upon projection of the latter through the keeper plate openings, a hasp hinged to said sliding member to swing toward and from the base plate, a hook lug on the underside of the free end of said hasp, said base plate having an opening through which the lug passes, and means on the bolt engageable with the hook lug upon closing of the hasp and movement of the bolt to locked position.

3. In a lock of the class described, a

keeper plate having spaced openings, a base plate carrying said keeper plate, a key controlled locking bolt mounted to slide on the base plate and projectable through one of the openings of the keeper plate, a second keeper plate having an opening for the reception of said locking bolt, a plurality of plates having eye lugs projectable through the remaining openings in the keeper plate, a sliding plate mounted on the base plate to slide transversely of the locking bolts, locking bars carried by the sliding plate and engageable by movement of the sliding plate through the eyes upon projection of the latter through the keeper plate openings, a hasp hinged to said sliding member to swing toward and from the base plate, a hook lug on the underside of the free end of said hasp, said base plate having an opening through which the lug passes, and means on the bolt engageable with the hook lug upon closing of the hasp and movement of the bolt to locked position, and coöperating means on the locking bolt and sliding plate arranged to prevent movement of the latter with the bolt in locking position.

In testimony whereof I affix my signature.

JOZEF DEMBICZAK.

Witnesses:

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