

June 18, 1957

M. M. CHECK
LUGGAGE LOCK

2,795,946

Filed Nov. 19, 1953

2 Sheets-Sheet 1

Fig. 1.

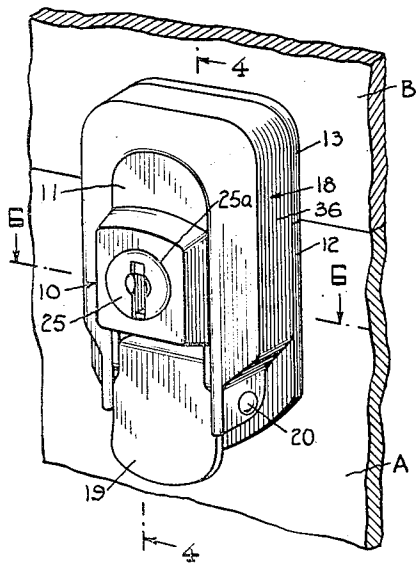


Fig. 2.

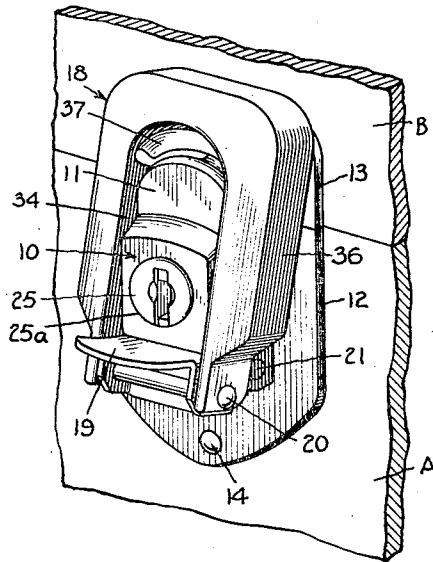
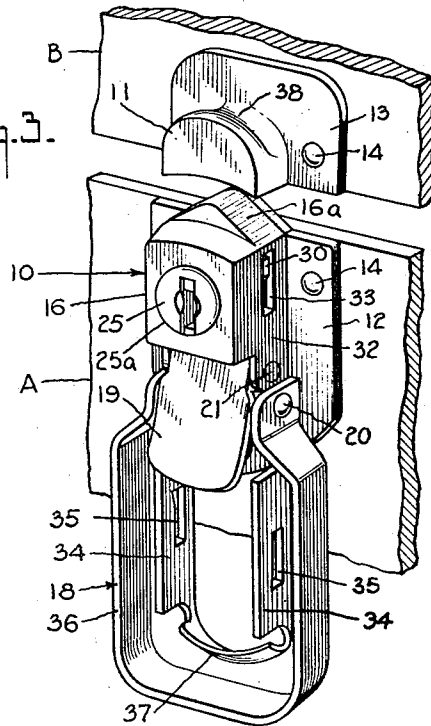


Fig. 3.



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2 Sheets-Sheet 2

Fig. 4.

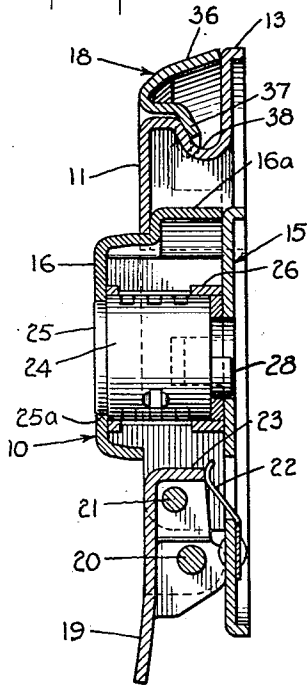


Fig. 5.

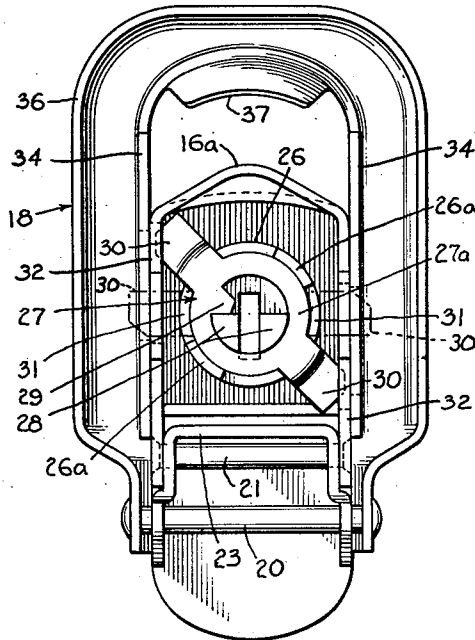


Fig. 6.

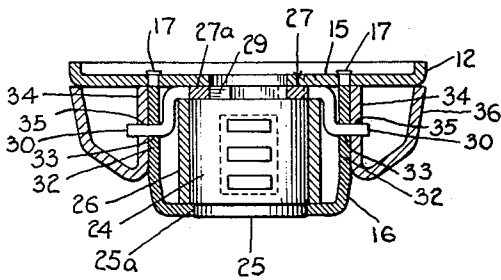
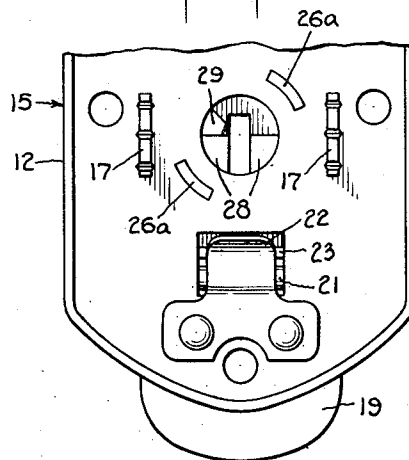


Fig. 7.



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1

2,795,946

LUGGAGE LOCK

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4 Claims. (Cl. 70-76)

This invention relates to luggage locks of the class in which a hasp is operated by a toggle lever to secure a strike relatively to a lock casing.

In locks of the particular class the toggle lever is usually mounted for movement relatively to the casing and is secured to the hasp for moving the hasp as the toggle lever itself is actuated. The hasp engages the strike and moves the strike toward the lock casing when the toggle lever is moved in one direction, a reverse movement of the toggle lever releasing the strike from the casing.

It is extremely important in locks of this class to provide satisfactory locking means for preventing the release movement of the hasp, and there are numerous patents showing various types of locking means for locking the hasp and for locking the toggle lever, whereby in turn to lock the hasp.

As an important feature of my invention, I lock the hasp relatively to the casing, and more particularly, I lock the hasp to that portion of the casing that is most closely positioned relatively to the strike. In this way, the hasp is locked against movement by means as closely positioned to the strike as possible, leaving very little opportunity for weaving of the hasp relatively to the strike and casing.

As a further particular feature of my invention, I form the hasp so that it is equipped with surfaces lying in close juxtaposition and in reinforced relation to the lock casing. In this way, it is extremely simple to obtain rigid and effective coaction between the hasp and locking means carried by the casing for locking the hasp to the casing.

As another particular feature of the invention, I provide a rotating bolt carried by the casing and moving into an opening formed in a hasp surface that lies against the lock casing, my construction being so particularly formed that preferably I can lock to the casing both of the juxtaposed surfaces of the hasp that lie in reinforced relation to the casing.

I have thus outlined rather broadly the more important features of my invention in order that the detailed description thereof that follows may be better understood, and in order that my contribution to the art may be better appreciated. There are, of course, additional features of my invention that will be described hereinafter and which will form the subject of the claims appended hereto. Those skilled in the art will appreciate that the conception on which my disclosure is based may readily be utilized as a basis for the designing of other structures for carrying out the several purposes of my invention. It is important, therefore, that the claims be regarded as including such equivalent constructions as do not depart from the spirit and scope of my invention, in order to prevent the appropriation of my invention by those skilled in the art.

Referring now to the drawings,

Fig. 1 shows my novel lock in locked position.

Fig. 2 shows the lock with the toggle lever in release position.

2

Fig. 3 shows the hasp rotated downwardly to effect full release of the strike.

Fig. 4 is a vertical section on the line 4-4 of Fig. 1.

Fig. 5 is a rear view of the luggage lock with the base plate removed.

Fig. 6 is a cross-section on the line 6-6 of Fig. 1, showing the bolt in locking position.

Fig. 7 shows a portion of the rear of the lock.

Referring now more particularly to Figs. 1, 2, and 3 of the drawings, reference numeral 10 indicates the lock casing, and reference numeral 11 indicates the strike. The casing 10 and strike 11 are equipped with the usual mounting flanges 12 and 13 adapted to receive rivets 14 for attaching the casing and strike to opposed parts A and B of a suitcase or other piece of luggage. I show the flange 13 formed integrally on the strike 11, but to form the flange 12 on the lock casing 10, I prefer to utilize projecting edge portions of a base plate 15 on the casing, as is well shown in Figs. 6 and 7. The casing 10 has also a body portion 16 formed with lugs 17 riveted to the base plate 15. Preferably, the body portion 16 of the casing has a tapered part 16a on its upper end, the purpose of this tapered part being primarily to guide the strike 11 into proper position relatively to the casing 10.

In Figs. 3 to 5, I show the U-shaped hasp 18 pivoted at its lower end to the toggle lever 19 through a transverse pin 20, with the toggle lever pivoted in turn to the lower end of the lock casing 10 by a second pin 21. This is a usual arrangement in luggage locks of the particular class, enabling the toggle lever 19 to pull the hasp downwardly to lock the strike 11 relatively to the upper end of the casing 10, as in Fig. 1, after the hasp has first been moved to a position over the strike as in Fig. 2. In Figs. 4 and 7, I show also an overcentering spring 22 on the base plate 15 of the lock casing, this spring pressing against a flange 23 on the upper portion of the toggle lever 19 to hold the toggle lever in either release position or locking position. The manner in which the toggle lever 19 actuates the hasp 18 will be readily understood by those skilled in the art, and I believe it unnecessary, therefore, to elaborate further on the operation of the toggle lever.

Referring now to Figs. 4, 5, and 6, I show in the body portion 16 of the lock casing a lock assembly 24 comprising a sleeve 26 having therein a rotating key plug 25, with the outer end of the plug positioned relatively to an opening 25a in the front of the casing 10. Sleeve 26 has lugs 26a, Figs. 5 and 7, engaged in slots in the base plate 15 to hold the sleeve 26 in position between the front of the casing 10 and the base plate 15. I mount also a bolt 27 in the lock casing 10, this bolt having a flat circular body portion 27a positioned against the base 15 and rotating within the mounting sleeve 26. The inner end of the key plug 25 is formed with cam portions 28 positioned in an opening in the circular portion 27a of the bolt, and when the key plug 25 rotates, these cam portions 28 coact with a lug 29 on the bolt 27 to rotate the bolt.

While I have shown a particular lock assembly 24 for actuating and mounting the bolt 27, it is to be understood that the particular means for actuating the bolt is not important to an understanding of my invention, and it is merely necessary to know that the lock is equipped with suitable means for rotating the bolt 27 in the casing.

As best seen in Figs. 5 and 6, I form the bolt 27 with opposed end portions 30 adapted to move in slots 31 in the mounting sleeve 26, and bent forwardly to offset positions relatively to the body portion 27a. The opposed sides 32 of the lock casing 10, Figs. 3, 5, and 6, are formed with slots 33 aligned with the bolt ends 30, and by rotation of the bolt 27, the ends 30 are projected and retracted through the slots 33 relatively to the lock casing 10.

For a full understanding of my invention, it is extremely important to note that the end portions 30 of the bolt, when projected relatively to the lock casing 10 as shown in dotted lines in Fig. 5, are positioned to lock the hasp 18 to the casing 10 as nearly as possible to the strike 11. In addition, the locking action of the bolt 27 can be effective to lock both sides of the hasp 18 directly to the lock casing 10. I shall now describe the novel hasp construction whereby I enable the bolt 27 to coact most efficiently with the hasp, and also enable the hasp to hold the strike 11 rigidly in locked position relatively to the casing 10.

As shown clearly in Figs. 3, 5, and 6, I form the hasp 18 with flanges 34 that are in juxtaposed relation to the side walls 32 of the casing when the hasp is in locked position. Openings 35 in the flanges 34 are then in alignment with the slots 33 in the casing 10. When the end portions 30 of the bolt are projected into the openings 35, therefore, the hasp 18 is locked directly to the casing 10; and moreover, the locking action occurs at two points on opposed sides of the hasp near the strike 11. In addition, I form the hasp flanges 34 to extend in juxtaposed relation to the sides of the strike 11, and I form on the upper end of the hasp 18 between the flanges 34 a lip 37 to enter a groove 38 on the upper side of the strike 11. With the hasp 18 locked rigidly to the lock casing 10 by the bolt 27, and with the strike 11 held relatively to the hasp 18 and casing 10 by the lip and flanges on the hasp, the strike 11 will be locked very rigidly to the lock casing 10.

I show the hasp 18 formed with an outer portion 36 extending around the hasp outwardly and rearwardly from the flanges 34 and lip 37 in such a way as to conceal the flanges and lip when the hasp is in locking position. At the same time, the outer portion 36 of the hasp is positioned over the mounting flanges 12, 13 on the strike and casing, and covers the rivets 14 in these flanges.

Through the exceedingly novel construction that I have contributed, I enable the strike in a luggage lock of the particular class to be locked much more positively relatively to the lock casing. Particularly, because the lock casing 10 and hasp 18 are in reinforcing relation to one another through the flanges 34 on the hasp, I substantially eliminate any possibility of movement between the hasp and the casing, or between the strike and casing, when the hasp is locked by the bolt 27. I believe that the construction and the operation of my novel luggage lock will now be understood, and that the very considerable value of my invention will be fully appreciated by those skilled in the art.

I now claim:

1. In a luggage lock of the class described, a lock casing, a toggle lever pivoted to said lock casing, a hasp having side portions pivoted to said toggle lever, a strike, a lip on said hasp through which the hasp engages said strike to pull said strike and casing toward one another, said toggle lever rotating on its pivot for moving said hasp to and from position locking the strike relatively to the casing, a flange on each side portion of said hasp juxtaposed relatively to a side of the lock casing and in reinforced relation thereto when the hasp is in said locking position, an outer portion of said hasp formed outwardly from said flanges and said lip whereby to enclose the flanges and lip when the hasp is in locking position, a key actuated bolt mounted to rotate in said lock casing, end portions on said bolt projected and retracted relatively to openings in the sides of the lock casing through rotation of the bolt in the casing, and said side flanges of said hasp having openings into which the bolt end portions move when projected outwardly of the lock casing whereby to lock the hasp in locking position.

2. In a luggage lock of the class described, a lock casing, a flange portion on said casing adapted to receive rivets for mounting said casing, a strike, a flange portion on said strike adapted to receive rivets for mounting the

strike, a U-shaped hasp, a lip on said hasp through which the hasp engages said strike to pull said strike and casing toward one another, a toggle lever pivoted to the sides of said hasp and to said lock casing for moving said hasp to and from position locking the strike relatively to the casing, a flange on each side of said hasp juxtaposed relatively to a side of the lock casing and in reinforced relation thereto when the hasp is in said locking position, a key actuated bolt mounted to rotate in said lock casing, end portions on said bolt projected and retracted relatively to openings in the sides of the lock casing through rotation of the bolt in the casing, said side flanges of said hasp having openings into which the bolt end portions move when projected outwardly of the lock casing whereby to lock the hasp in locking position, and an outer portion on said hasp extending outwardly from said lip and flanges and positioned over the flange portions of the strike and casing when the hasp is in locking position whereby to cover the mounting rivets.

3. In a luggage lock of the class described, a lock casing, a toggle lever pivoted to said lock casing, a hasp having side portions pivoted to said toggle lever, a strike, a lip on said hasp through which the hasp engages said strike to pull said strike into juxtaposed relation to one end of the lock casing, said toggle lever rotating on its pivot for moving said hasp to and from position locking the strike relatively to the casing, a flange on each side portion of said hasp juxtaposed relatively to a side of the lock casing and in reinforced relation thereto when the hasp is in said locking position, an outer portion of said hasp formed outwardly from said flanges and said lip whereby to enclose the flanges and lip when the hasp is in locking position, a key actuated bolt mounted to rotate in said lock casing, opposed sides of the lock casing formed with openings in proximity to the said one end of the casing, end portions on said bolt projected and retracted relatively to the openings in the sides of the lock casing through rotation of the bolt in the casing, and said side flanges of said hasp having surfaces against which the bolt end portions move when projected relatively to the casing openings whereby to lock the hasp near the strike.

4. In a luggage lock of the class described, a lock casing, a toggle lever pivoted to said lock casing, a hasp having side portions pivoted to said toggle lever, a strike, a lip on said hasp through which the hasp engages said strike to pull said strike and casing toward one another, said toggle lever being rotatable on its pivot for moving said hasp to and from position locking the strike relatively to the casing, a flange on each side portion of said hasp juxtaposed relatively to a side of the lock casing when the hasp is in said locking position, an outer portion of said hasp formed outwardly from said flanges and said lip whereby to enclose the flanges and lip when the hasp is in locking position, said hasp and casing having opposed surfaces through which they are in reinforced relation to each other when the hasp is in locking position, key actuated bolt means mounted in said lock casing, parts on said bolt means moving between projected and retracted positions relatively to openings in the sides of the lock casing, said side flanges of said hasp having openings aligned with the casing openings when the hasp is in locking position whereby the bolt parts when projected lock both sides of the hasp relatively to the casing, and said bolt parts when locking the hasp acting together with said opposed surfaces to hold the hasp rigidly in locking position.

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