A. P. HONEY.

LOCKING DEVICE FOR CRATE LIDS AND THE LIKE.

APPLICATION FILED APR. 29, 1911.

1,007,204.

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FIG. 1.

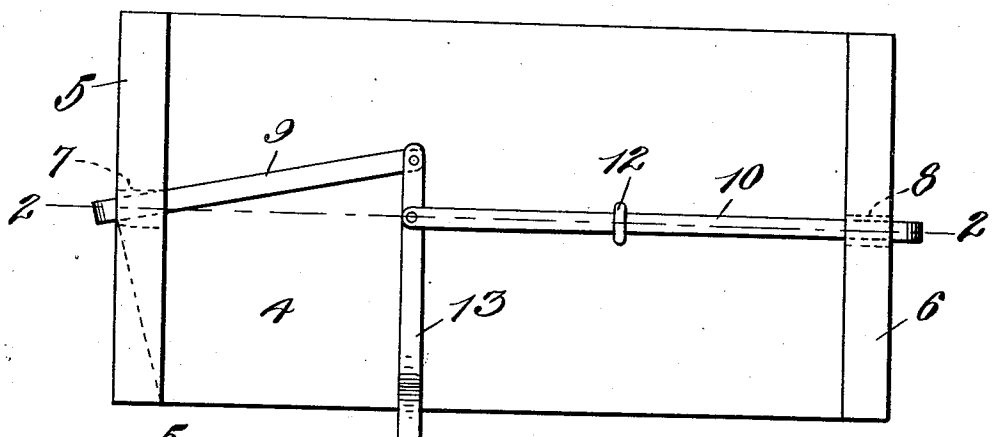


FIG. 2.

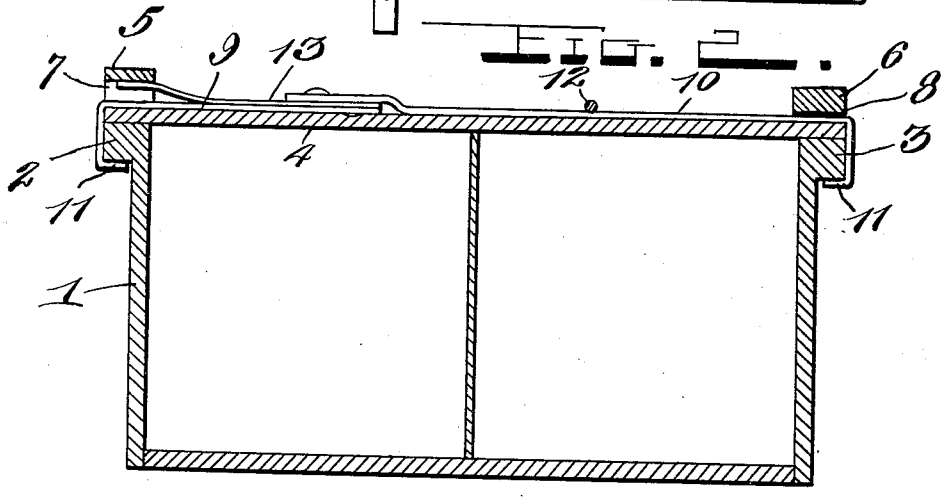
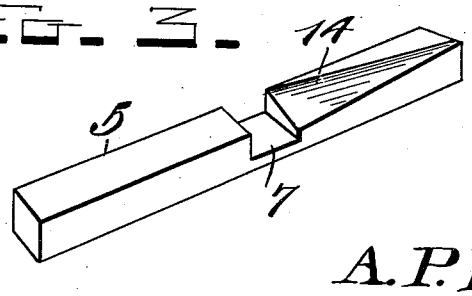


FIG. 3.



Witnesses

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LOCKING DEVICE FOR CRATE-LIDS AND THE LIKE.

1,007,204. Specification of Letters Patent. **Patented Oct. 31, 1911.**

Application filed April 29, 1911. Serial No. 624,142.

To all whom it may concern:

Be it known that I, ARCHIE P. HONEY, a citizen of the United States, residing at Salem, in the county of Dent and State of Missouri, have invented certain new and useful Improvements in Locking Devices for Crate-Lids and the Like, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to new and useful improvements in lids for boxes, crates and the like and more particularly to a locking device therefor, and my object is to provide a device of this character which will effectively lock the lid to a box, whereby the same may be readily and easily removed when desired.

A further object of the invention resides in providing sliding bolts having clips on the ends thereof adapted to engage lugs on the box or crate ends, and a still further object resides in providing a lever to which said sliding bolts are pivoted.

Still another object of the invention is to provide means to retain said lever in its effective locking position, and a further object of the invention is to provide means to limit the movement of said lever.

With these and other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawing forming a part of this application, Figure 1 is a top plan view of the device showing the sliding bolts in their ineffective positions. Fig. 2 is a vertical longitudinal section as seen on line 2—2, Fig. 1, showing the sliding bolts in their effective locked positions, and, Fig. 3 is an inverted detail perspective of one of the cleats secured on the lid.

In carrying out my invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views and in which 1 indicates a box or crate of the usual or any preferred type, I having shown the type of crate used in shipping eggs, and said crate is provided on the end walls thereof at their upper edges with the flanges or elongated lugs 2 and 3, which lugs may be formed integral with said ends or secured thereto in any desired manner.

The lid 4 is provided of a length substantially equal to the distance between the outer faces of the flanges 2 and 3, and the upper face of said lid is provided at the ends thereof with the flanges or cleats 5 and 6, these cleats being either formed integral with said lid or secured thereto, as desired, the latter being preferable. The cleats 5 and 6 have their bottom faces provided about centrally with the grooves 7 and 8, respectively, through which are adapted to extend, the sliding locking bolts or rods 9 and 10. The bolt 9 is of a shorter length than the bolt 10 and each has the outer end thereof, beyond the cleat at the end of the lid, bent downwardly and inwardly to form a locking clip 11, the distance between the inwardly bent portion of the clip and the body portion of the bolt being substantially equal to the distance between the bottom face of one of the flanges 2 or 3 and the upper face of the lid 4. The bolt 10 also extends through a keeper or the like 12 mounted on said lid, and both of said bolts have their inner ends pivotally mounted a short distance from one another to one end of a lever 13.

As just stated, the pivot points of the two rods 9 and 10 are a short distance from one another adjacent the end of the lever, and in view of this fact, it will be seen that as said lever is swung in one direction, said rods will be thrown inwardly, thereby forcing the clips at the ends thereof into locking engagement with the flanges 2 and 3, and when moved in the other direction, said bolts will be forced outwardly and move the locking clips thereof out of engagement with said flanges. This lever 13 which is formed of spring metal, has the outer end thereof bent slightly upwardly, and when the same is moved in a position to lock the clips of the rods 9 and 10 into engagement with the flanges, said lever is adapted to be in substantial alinement with both of said bolts 9 and 10, but the lever in such position is of greater length than the distance between its pivot point and the inner face of the flange 5, so that some means must be provided to accommodate the same. To this extent, the under face of the cleat 5 on one side of the groove therein is cut away or beveled upwardly, as shown at 14, so that the end of said lever when moved in its arcuate path to lock the ends of the rods, may be received thereby, and when said lever is moved so as to be in substantial

alinement with the bolts, the same will spring into the groove of said cleat 5 and be locked therein between the side walls of the same. Thus, to release the locking clips from their effective position in engagement with the flanges 2 and 3, pressure must be placed upon the bulged portion of the lever and an outward movement given the same to allow the same to be removed from its locked position with the cleat 5. It will be seen, however, that the one wall of the groove in the cleat 5 will limit the movement of said lever in one direction and the keeper 12 will limit the same in the opposite direction, thereby retaining said lever in position to be operated at all times. It will further be seen that when said lever is moved in one direction, the locking clips will positively and effectively engage the flanges of the crate or box, and when said lever is sprung beneath the cavity in the one cleat and into the groove therein, the lid will remain locked to the crate until such time as said lever is released from its locked position.

It is a well known fact that in crates in use at present, the lids are not capable of being used more than once or twice, in view of the fact that the same are usually nailed to the body portion of the crate, and in removing the same, both the crate proper and said lid are considerably damaged, but it will be seen that in my improved locking device, the lid may be readily and quickly applied to use with little labor or time being involved, and furthermore, the same is adapted for use as long as the crate proper is in condition. It will still further be seen that this device is of such simple construction as to be readily and cheaply manufactured, thereby making the same practically inexpensive to the retail purchaser and one which is extremely effective and useful in operation.

What I claim is:—

1. In a locking device of the class described, the combination with a receptacle having flanges on the outer faces of the end walls thereof and a lid for the receptacle; of a pair of sliding bolts mounted on the upper face of said lid provided with clips at the outer ends thereof, and a lever to which the inner ends of said bolts are pivoted, to draw said clips into effective engagement with said flanges.

2. In a locking device of the class described, the combination with a receptacle having flanges on the outer faces of the end walls thereof and a lid for the receptacle; of a pair of sliding bolts mounted on the upper face of said lid, locking clips formed on the outer ends of said bolts, a lever pivotally engaged with the inner ends of said bolts, to draw the locking clips into effective engagement with the flanges, and means on the lid for retaining the lever when the clips are in their effective positions.

3. In a locking device of the class described, the combination with a receptacle having flanges on the outer faces of the end walls thereof and a lid for the receptacle, said lid being provided with cleats immediately adjacent the ends thereof; of a pair of bolts slidably disposed through the cleats of said lid, locking clips formed on the free ends of said bolts, a lever to one end of which is pivotally engaged the inner ends of said bolts, and means formed on one of said cleats to retain said lever when the same has been moved into its effective locking position.

4. In a locking device of the class described, the combination with a receptacle having flanges formed on the outer faces of the end walls thereof, a lid for the receptacle, and cleats on the upper face of said lid immediately adjacent the ends thereof, said cleats being provided with alining grooves; of a pair of bolts slidably mounted through the grooves of said cleats, locking clips formed on the outer ends of said bolts, a lever having separate pivotal connection with the inner ends of said bolts to force the clips into engagement with the flanges when said lever is moved in one direction, and means on one of said cleats to retain said lever in its effective position.

5. In a locking device of the class described, the combination with a receptacle having flanges formed on the outer faces of the end walls thereof, a lid for the receptacle, cleats secured to the upper face of said lid immediately adjacent the ends thereof, said cleats being provided with alining grooves; of a pair of bolts slidably disposed through the grooves in said cleats and having locking clips formed on the outer ends thereof, one of said bolts being of greater length than the other, a lever having separate pivotal connection with the inner ends of said bolts, and means on the cleat of the lid through which the shorter bolt extends, for receiving the free end of said lever when moved to its effective position.

6. In a locking device of the class described, the combination with a receptacle having flanges formed on the outer faces of the end walls thereof, a lid for the receptacle, cleats secured to the upper face of the lid immediately adjacent the ends thereof, each of the last referred to cleats having the bottom face thereof provided with a channel and one of said cleats having a portion of its under face beveled on one side of the channel; of a pair of bolts slidably disposed through the channels of said cleats and having locking clips formed on the outer ends thereof, and a lever having separate pivotal connection with the in-

ner ends of said bolts to draw said clips into effective engagement with the flanges of the end walls, the beveled portion of the one cleat being adapted to receive thereunder the free end of said lever when the same is moved into its effective position.

7. In a locking device of the class described, the combination with a receptacle having flanges on the outer faces of the end walls thereof, a lid for the receptacle having cleats on the upper face thereof immediately adjacent its end, said cleats being provided with alining grooves; of a pair of bolts slidably disposed through the grooves of said cleats and having clips formed on the outer ends thereof, one of said bolts being of greater length than the other, a lever having separate pivotal connection with the inner ends of said bolts to draw the clips into effective engagement with the flanges of the end walls, means on one of the cleats to retain said lever in its effective position and a keeper on the lid through which the longer bolt extends, said keeper being also adapted to limit the movement of the lever in one direction.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ARCHIE P. HONEY.

Witnesses:
I. A. YOUNG,
THOS. A. BRUCE.