(No Model.)

T. E. SAYRE.

BOX FASTENER.

No. 564,315. Patented July 21, 1896.

Fig. 1.

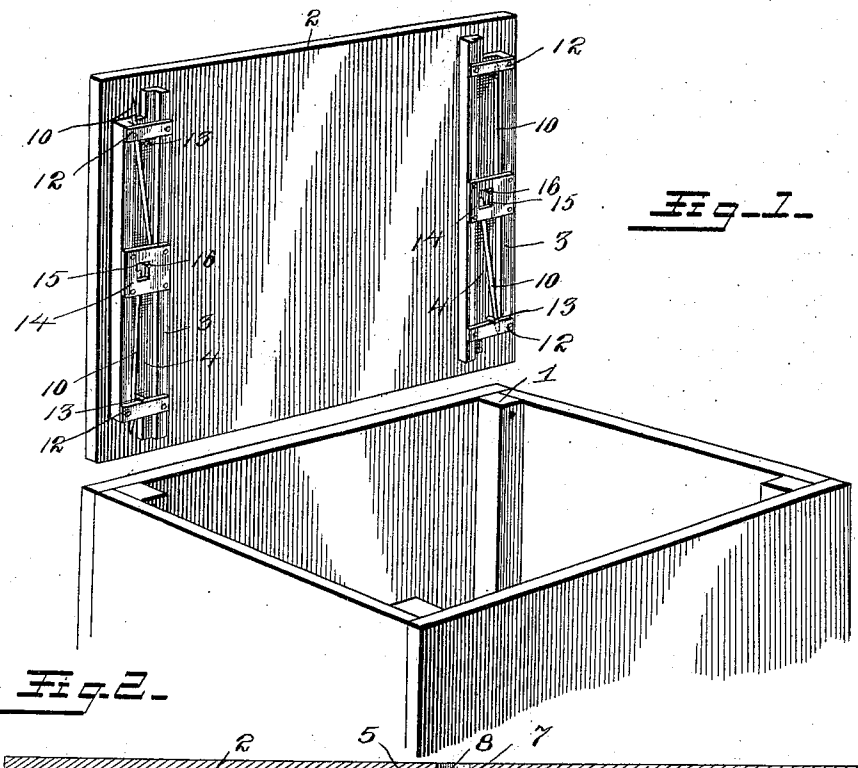


Fig. 2.

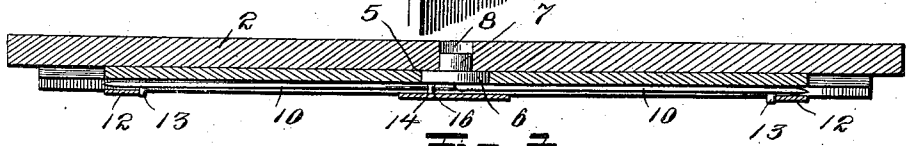


Fig. 3.

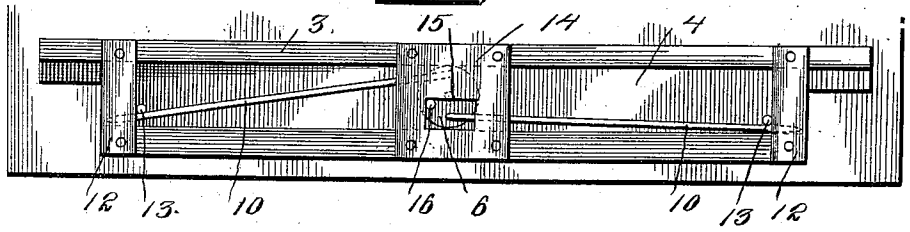


Fig. 4.

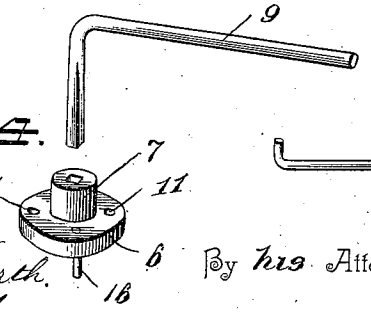
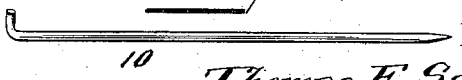


Fig. 5.



Witnesses

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BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 564,315, dated July 21, 1896.

Application filed November 21, 1895. Serial No. 569,678. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. SAYRE, a citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented a new and useful Box-Lid Fastener, of which the following is a specification.

This invention relates to box-lid fasteners, and has for its object to provide a novel construction of lock or fastening device, the same being mounted in a grooved cleat which is adapted to be secured to the under side of a box-lid, the locking or fastening mechanism being capable of being operated from the exterior of the box or case by means of a key, thus allowing the lid or cover to be removed and replaced at pleasure.

To this end the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of an ordinary box or packing-case, showing the lid lifted from the same and showing the improved fastening devices applied to said lid. Fig. 2 is a vertical sectional view taken in line with one of the lid-cleats and the disk-shaped tumbler. Fig. 3 is a reverse face view of one of the cleats and the securing means applied thereto. Fig. 4 is a detail perspective view of the operating disk or tumbler. Fig. 5 is a similar view of one of the bolts.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

The locking means contemplated in this invention is especially designed for use in connection with tobacco-cases, in which it is often necessary to frequently remove the lid or cover for obtaining access to the contents for sampling purposes, and to again replace the lid or cover and again secure the same in place. Heretofore this has been accomplished simply by nailing the lid or cover upon the case, thus rendering it a laborious task to remove and replace the lid. In order to overcome this objection, I have devised the following means:

In the ordinary construction of tobacco-cases or packing-boxes of a similar nature corner-posts 1 are usually employed for strengthening and bracing the box or case and enabling the same to withstand rough handling. In carrying out the present invention I provide the lid 2 with a pair of cleats 3, arranged adjacent to the opposite side edges of the lid, and secured to the bottom face thereof. These cleats are located in such manner as to abut at their opposite side edges and extremities against the sides and ends of the box and are each notched or cut away at opposite ends to embrace and receive the vertical corner-posts 1 when the lid is in position. Each of said cleats 3 is formed with a wide longitudinal groove or depression in its bottom face, said groove being indicated at 4. In addition to this longitudinal groove, each cleat is further provided with a centrally-located circular recess 5, in which is arranged a disk or tumbler 6. The disk or tumbler 6 is made of metal and is of a thickness which will adapt the same to rest within said recess and be flush with the bottom of the facial groove 4, and said disk or tumbler is formed with an integral upwardly-extending hub portion 7, which enters and is rotatable within a circular aperture 8, concentric with the recess 5 and extending entirely through the lid 2. The hub 7 of the disk or tumbler is formed with a squared hole, into which may be fitted a key 9, by means of which the disk or tumbler may be revolved for a purpose hereinafter described.

10 designates a pair of bolts which lie within the facial groove 4 of the cleat and have their inner extremities bent substantially at a right angle and entering diametrically opposite perforations 11 in the disk or tumbler. The outer extremities of the bolts 10 are sharpened or pointed, as shown, and are adapted to enter the corner-posts 1 and to penetrate sufficiently into the same to prevent the lid from being thereafter removed. The extremities of the bolts are guided and supported by means of metal straps 12, which extend across the facial groove 4, adjacent to the ends of the cleat, and prevent displacement of the bolts, while at the same time permitting their free longitudinal movement, and the bolts are further guided by means of pins or brads 13, driven into the cleat in such manner as to confine the bolt ends between them and the

outer wall of the groove 4, as clearly illustrated in the drawings.

14 designates a slotted retaining-plate secured centrally to the bottom of each cleat and extending across the groove therein. This plate rests beneath the inner ends of the reciprocating bolts and prevents the same from becoming disengaged from the disk or tumbler 6. This plate also performs another important function by reason of its having a slot 15, through which projects a pendent pin or stud 16, carried by the disk or tumbler. This slot is of such extent and disposed in such manner that it will allow the pin 16 to travel far enough in one direction to entirely withdraw the pointed bolts from their engagement with the corner-posts of the packing-case, or to move sufficiently in the opposite direction to carry the points of attachment of the bolts to the operating-disk past the center or beyond a line drawn longitudinally through the pivotal center of the disk, so that the bolts will be locked positively in their extended positions, thus rendering it imposible for said bolts to be accidentally thrust inward. At the same time the bolts may be readily operated by inserting the key above referred to into the operating disk or tumbler and turning the same in a manner that will be readily understood.

By means of the construction above described a very simple, inexpensive, and effective fastening device is obtained, the same being especially applicable to and desirable in packing-cases in which it is necessary to frequently remove the lid or cover for the purpose of inspecting or sampling the contents. By this construction the lid or cover may be removed and replaced an indefinite number of times without in any way destroying the efficiency of the locking device or marring or detracting from the appearance of the case.

It will be understood that the form of the key and the key-socket in the operating disk or tumbler may be varied to suit the manufacturer or consumer and that other changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

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

A cleat having a longitudinal groove and provided with a recess in the base of the groove, in combination with a tumbler having diametrically opposite sockets and arranged in said recess so as to be flush with the base of the groove, the said tumbler being provided with a key-socket, oppositely-extending bolts reciprocating in the groove in a plane parallel with the tumbler and having their inner ends bent substantially at right angles and inserted in sockets in the tumbler, a stop-pin on the tumbler, and a retaining-plate bridging the groove and inclosing the tumbler and also provided with a slot which receives the stop-pin and coacts therewith to limit the rotation of the tumbler, said plate also preventing the disengagement of the bolts from the tumbler, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS E. SAYRE.

Witnesses:
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ROBE DOW, JR.