No. 617,582. Patented Jan. 10, 1899.

R. C. KUHN.

BOX FASTENER.

(Application filed Feb. 24, 1898.)

(No Model.)

Fig. 1,

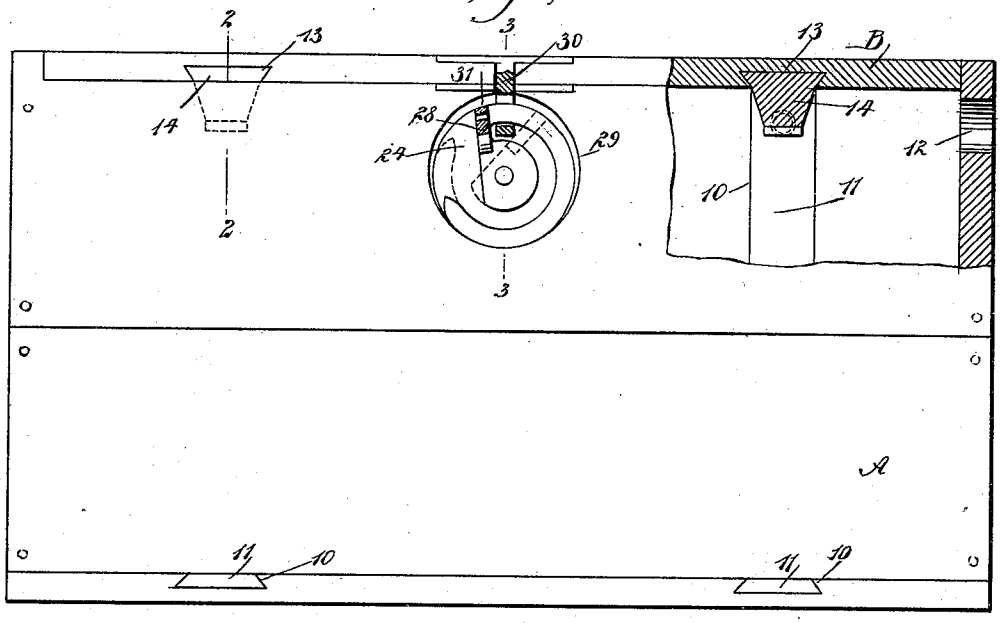


Fig. 2.

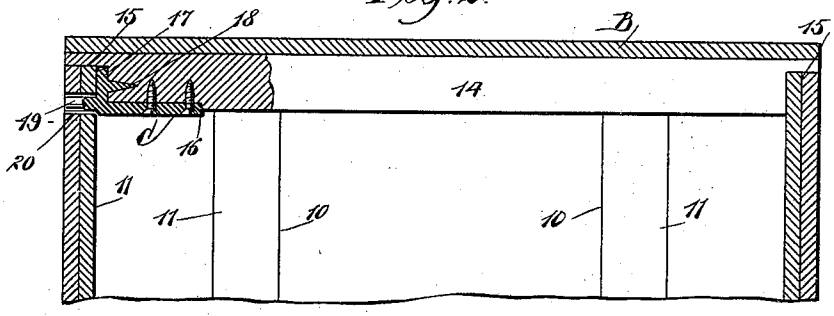
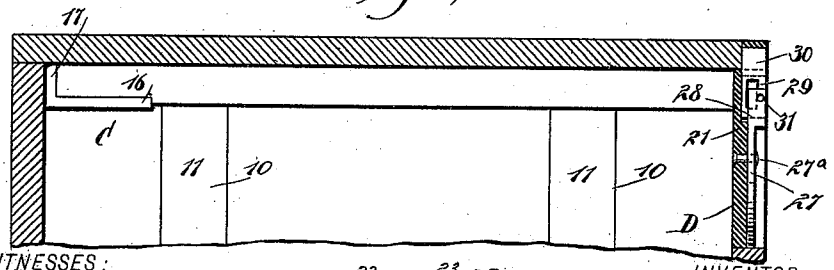


Fig. 3,



WITNESSES:

Edward Thorpe.

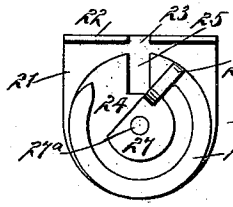
INVENTOR

R. C. Kuhn.

BY

ATTORNEYS.

Fig. 4.



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RUDOLPH C. KUHN, OF LA CROSSE, WISCONSIN.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 617,582, dated January 10, 1899.

Application filed February 24, 1898. Serial No. 671,485. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH C. KUHN, of La Crosse, in the county of La Crosse and State of Wisconsin, have invented a new and Improved Fastener for Boxes, of which the following is a full, clear, and exact description.

The object of my invention is to provide a simple, durable, and economic fastener for boxes and like receptacles, being especially adapted for application to boxes used for the transportation of such articles as bottled beer, bottled water, eggs, &c., where it is desirable for the empty boxes to be returned.

A further object of the invention is to provide a fastener adapted to be partially applied to the body of the box and partially to the cover, and to so apply the parts of the device to the parts of the box that the cover may be conveniently and quickly placed in position and securely locked and as readily unlocked and entirely removed from the box.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a box to which the fastener is applied, a portion of the box being broken away and likewise a portion of the fastener. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a transverse section on the line 3 3 of Fig. 1, and Fig. 4 is an outer face view of the main locking or latch portion of the fastener.

The box A may be of any approved construction, but is preferably made as illustrated, in which the sides, bottom, and ends are provided at their inner faces with dovetail grooves 10, which receive correspondingly-shaped cleats 11. The ends of the box are provided with handholds 12, as shown in Fig. 1. The cover B, which is preferably fitted between the ends and rests on the sides of the box, is likewise provided with dovetail grooves 13 in its under face. These dovetail grooves 13 receive correspondingly-shaped cleats 14, but the major portion of the cleats 14 extends below the under face of the top B. The ends of the cleats 14, however, are reduced to such an extent that the end portions of the cleats will be flush with the under face of the cover, as shown at 15 in Fig. 2.

At what may be termed the "rear" side of the cover two or more locking-brackets C are secured. Each of these brackets comprises a horizontal member 16, which is secured to the under face of a cleat 14, a vertical member 17, which engages with the vertical wall of the recessed portion of the cleat 14 to which the bracket is attached, a spur 18, which extends from the vertical or short member 17 and is adapted to enter the cleat, and a lug 19, which is carried from the main member 16 and is adapted to enter an opening 20 made in the rear side of the box and preferably at that portion where a cleat 11 is secured.

A lock-latch D, which forms the second portion of the fastener, is attached to the front side of the box-body A. This lock-latch consists of a back plate 21, provided with an outwardly-extending flange 22 at the top in which a transverse opening 23 is made, and upon the front face of the plate 21 a disk projection 24 is formed, having an opening 25 in its upper edge immediately below the opening 23 in the flange 22. A segmental latch 26 is adapted to turn on the disk projection 24. One end of the segmental latch 26 is attached by means of an arm 28 to a pivot-plate 27, the pivot-plate 27 being segmental, and the pivot-pin 27^a of the plate 27 is passed through its center into the center of the disk projection 24 on the back plate. One side of the pivot-plate 27 is flat and the connecting-arm 28 is in alinement with this flat surface of the pivot-disk. Said arm 28 extends outwardly in the shape of a lug beyond the plane of the outer face of both the segmental latch 26 and the pivot disk or plate 27. The back plate of the lock-latch is attached to the inner face of the front side of the box at about the longitudinal center of the box, the fixed disk 24 on the back plate, together with the latch 26, being made to extend out through an opening 29 made in the aforesaid front side of the box. A staple 30 is attached to the central portion of the cover, and the said staple when the cover is closed extends downward through

the opening 23 in the flange of the back plate and into the opening 25 in the fixed disk 24, as shown in Figs. 1 and 3.

When the cover is to be placed upon the box, the lugs 19 of the locking-brackets C are made to enter the openings 20 in the rear side of the box and the staple 30 of the cover is permitted to drop downward into the recess 25 in the fixed disk of the locking-latch back plate, the front end of the segmental latch 26 having been carried away from the recess 25, as illustrated in Fig. 4. The staple having been given its proper position in the fixed portion of the locking device the latch 26 is turned until its free end has passed through the opening in the staple 30, locking the said staple in the recess into which it was introduced, and the latch 26 is continued to be turned until the lug 28 shall be brought in engagement with one side of the staple, as illustrated in Figs. 1 and 3, whereupon the usual lead seal or equivalent device may be employed to secure the lug 28 to the staple 30, the wire of the seal being passed through an opening 31 in the lug and through the staple.

The device is exceedingly simple, durable, and economic, as stated, and is particularly adaptable to the purposes for which it is intended. It may be attached readily to any box and will lock the cover firmly in position on the box, yet will enable said cover to be entirely removed without injury to either box or cover, the attaching devices for the cover remaining intact, and the cover can be as readily restored to place as removed from the body of the box.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a box having openings in its rear side, and a latch device located at its front side, the said latch device consisting of a back plate provided with an embossed front surface and a recess in the said embossed surface extending to the upper portion of the plate, a segmental disk pivoted at the center of the embossed surface of the plate, a segmental latch mounted to turn on the said embossed surface of the plate around the pivot of the said disk, an arm connecting the pivot-disk and one end of the segmental latch, the said arm extending outward beyond the plane of the front face of the latch, the projecting portion of the arm having an opening made therein, of a cover for the box, locking-brackets attached to said cover at one of its sides, each bracket consisting of a body having means for attachment to the cover, and a lug projected from the body, the lugs being adapted to enter the openings in the rear side of the box, and a staple projected downward from the front edge of the cover, and adapted to enter the recess in the embossed portion of the front plate and likewise receive the segmental latch, the lug of the latch being arranged for engagement with the staple when the latch is in its full locking position, as described.

2. In a locking device for a box, a cover having at one edge projections upon its inner face and brackets carried by the said projections, the body of each bracket being of angular construction, one member being adapted for engagement with the under face of the projection from the cover, the other member of the bracket being provided with a spur adapted to enter the end of the said projection, and a lug which extends from the end of the lower member of the bracket and beyond the upwardly-extending member of the same, for the purpose set forth, and means for fastening the opposite edge of the cover.

RUDOLPH C. KUIIN.

Witnesses:
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O. R. SKAAR.