A. W. KOORS.

PACKING CRATE.

APPLICATION FILED MAY 31, 1918.

1,310,352. Patented July 15, 1919.

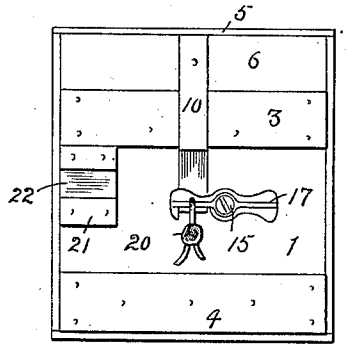


Fig. 1.

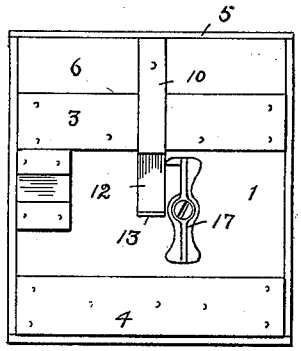


Fig. 2.

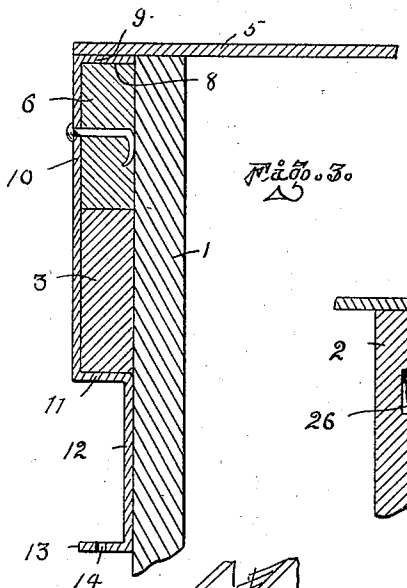


Fig. 3.

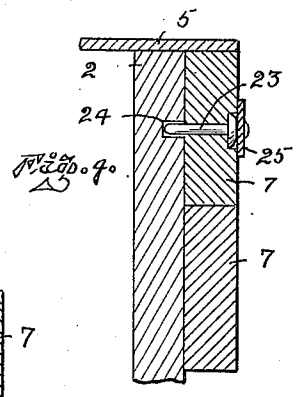


Fig. 4.

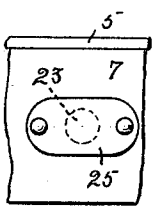


Fig. 5.

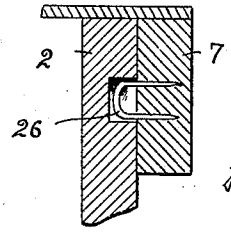


Fig. 6.

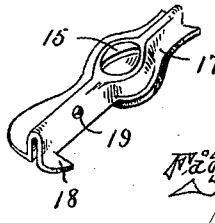


Fig. 7.

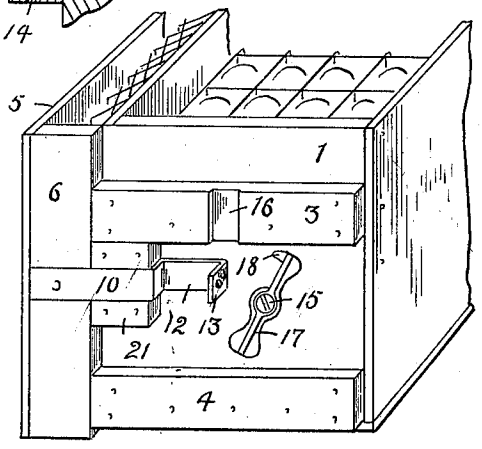


Fig. 8.

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PACKING-CRATE.

1,310,352. Specification of Letters Patent. Patented July 15, 1919.

Application filed May 31, 1918. Serial No. 237,555.

To all whom it may concern:

Be it known that I, AUGUST W. KOORS, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Packing-Crates, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to packing boxes or crates and has special reference to an improved form of cover and its attachment for egg crates.

The primary object is to produce practical means for the preservation of the covers to such crates, as it is well known how easily they become lost or destroyed under ordinary circumstances.

Another object is to produce a cover having simple, secure and inexpensive means for fastening same to the crate.

Other objects and advantages will appear in the further description of the invention.

Referring to the accompanying drawings forming part of this application and in which like reference characters indicate like parts:—

Figure 1 is an end elevation of a crate with the cover applied showing the end thereof upon which the adjustable fastening device is applied and locked,

Fig. 2 is a similar end view showing the fastening device unlocked,

Fig. 3 is a central vertical sectional view of the end of the crate shown in Figs. 1 and 2,

Fig. 4 is a similar view through the opposite end of the crate,

Fig. 5 is an outside elevation of the fastening device shown in Fig. 4.

Fig. 6 is a vertical sectional view of a modified form of fastener which may be employed in lieu of that shown in Figs. 4 and 5,

Fig. 7 is a perspective view of a fragmental portion of the thumb-button forming part of the adjustable fastening device, and

Fig. 8 is a perspective view of one end of a crate and cover showing the latter placed beside the former in a convenient stowed position.

The body of the crate and cover is in all respects, such as are commonly found in the trade.

1 and 2 represent the ends of the crate each having cross cleats 3 and 4 thereupon. 5 represents the cover having end cleats 6 and 7 thereupon and which cleats occupy the space intermediate of the cleats 3 and the upper edges of the ends 1 and 2 when the cover is in place on the crate, all of the cleats being of like thickness.

In applying my improvement to the cover, I recess or scarf the upper edge of the cleat 6 as at 8 to receive the angularly bent end 9 of the resilient metal strap 10 and also similarly recess or scarf the outer face of said cleat and the cleat 3, whereby when the strap is in place, on the cleats, the outer face thereof will be flush with the outer face of the cleats. The strap is fastened to the cleat 6 by one or more suitable nails as shown.

The strap 10 is bent inwardly as at 11, parallel with the bent end 9 and is designed to similarly fit in against the under edge of the cleat 3 and against the end 1 of the crate as at 12, said portion 12 being made parallel with the end of the crate, and having its extreme end 13 bent outwardly at right angles parallel with the portion 11 and provided with a hole 14.

Pivotally mounted on the end of the crate as at 15, below the cleat 3 and to one side vertically of the scarf 16 in said cleat, is a thumb-button 17 which is of a common type well known to the trade, except that I have cut away a portion of the base flange on one end thereof leaving a hook or dog 18 at the extreme outer end of one side of the button. This hook overreaches the projection 13 of the strap 10 when the button is turned for such purpose and to hold the strap tightly against the end of the crate, as the button, thus turned, passes outside of and impinges against the portion 12 of the strap.

A hole 19 is formed through the web of the button 17 and so positioned as to properly register with the hole 14 in the end of the strap when the latter is locked by the button.

Through these registering holes may be placed any suitable form of seal or lock as indicated at 20.

The strap 10 being made of resilient metal, may be readily sprung outwardly to freely pass the cleat 3 for either applying or removing the cover, but is made to normally lie against the cleat and the end of the crate when the cover is in place on the crate.

Directly below and adjacent one end of the cleat 3 and permanently fixed to the end of the crate, is a small square piece of cleat

material 21 having a horizontal scarf 22 therein into which the strap 10 fits when the cover is set up against the side of the crate as shown in Fig. 8 of the drawings and which serves to temporarily hold the cover in such position during the time when the crate is being emptied, as for example, when the eggs are being sold from the crate in a store.

When the cover is in this stored position, the cleats 6 and 7 hold the top portion 5 thereof a spaced distance from the adjacent side of the crate and thus provide a convenient space into which the folded partition fillers may be stored until the crate is emptied.

The convenience of this simple provision is quite apparent to those versed in the art, for it is well known how inconvenient and generally unsatisfactory it is to have the covers and fillers of such crates strewn about and frequently destroyed or lost, whereas, with my form of cover and fastening device, each crate and its respective parts may be kept neatly together and preservation insured.

The cover in this stored position, is so held only at one end as the preferable embodiment of the invention employs but a single strap 10 at one end of the cover, however, it is understood that such may be used on both ends thereof if preferred.

In the construction shown, the opposite end of the cover is provided with a metal pin 23 positioned centrally within the cleat 7 and made to protrude inwardly approximately half the thickness of the end 2 of the crate there being a suitable hole 24 formed in the outer face of such end for the reception of the protruding end of the pin.

The head of the pin is preferably let into the outer face of the cleat 7 and covered with a small piece of thin metal 25 to prevent its falling out.

With this arrangement, it is evident that in order to properly enter the pin 23 in the hole 24, the cover will have to be put on the crate with a slight longitudinal movement toward the opposite end, after which, the latter is lowered into place and the strap 10 properly engaged under the cleat 3 which will result in the cover being securely fastened at both ends.

To remove the cover, the end with the strap 10 thereupon is first raised until the cleat 6 clears the upper edge of the end 1 when the entire cover is moved toward the opposite end sufficient to disengage the pin 23 from the hole 24 and the cover thus wholly freed from the crate, when it may be most conveniently stowed at the side as shown in Fig. 8.

In Fig. 6 I have illustrated a modified form of fastening device for that end of the cover held by the pin 23 and which may be used in lieu of said pin, the staple 26 answering every purpose of the pin and possibly considered more practical.

Other modifications and changes in construction within the scope of the invention may be resorted to without departing from the spirit thereof.

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

1. The combination with a crate having a cover of the character described including rigid means at one end for coöperative engagement with the crate when the cover is being used as a closure therefor and resilient means at the opposite end for like engagement with the crate, of means upon one end of the crate for engagement with the resilient means on the cover when the latter is placed on edge adjacent one side of the crate whereby storage space is provided for the reception of certain contents of the crate.

2. The combination with a crate having fixed transverse cleats on the ends thereof and a cover having a rigidly fixed engaging means at one end, of a resilient depending strap at the opposite end which overlaps the corresponding cleat on the end of the crate and has a U-shaped portion lying flat against the end of the crate below the cleat, a centrally ribbed double-ended common button pivotally mounted on the end of the crate adjacent the U-shaped portion of the strap, a portion of one side of the button being cut away, forming a hook, thus permitting the rib of the button to engage the lowermost side of the U-shaped portion of the strap when that side of the button is interlocked with the strap and holes through the end of the strap and the rib of the button registerable with each other for the reception of a seal or lock.

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

AUGUST W. KOORS.

Witnesses:
H. L. Laliberte,
S. Geo. Spevens.

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