W. BEEHLER.

CRATE.

APPLICATION FILED JUNE 26, 1909.

960,484. Patented June 7, 1910.

Fig. 1.

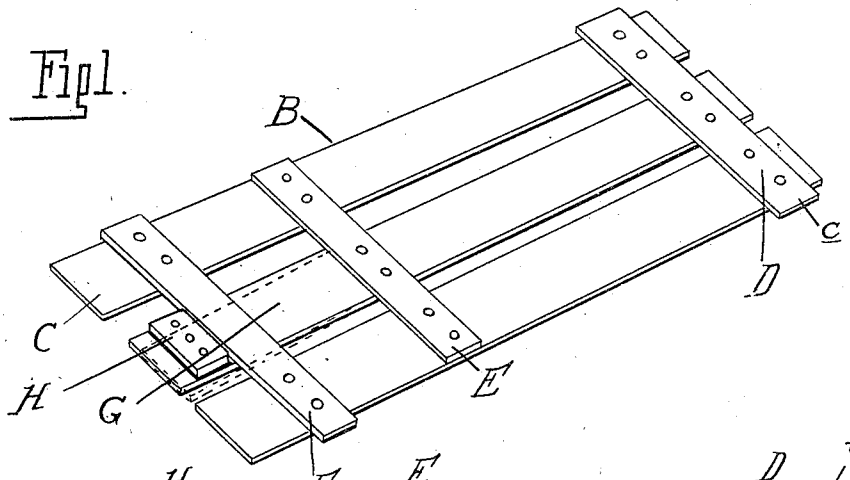


Fig. 2.

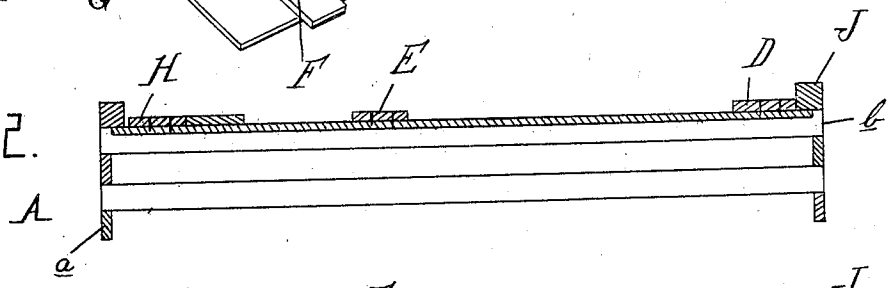


Fig. 3.

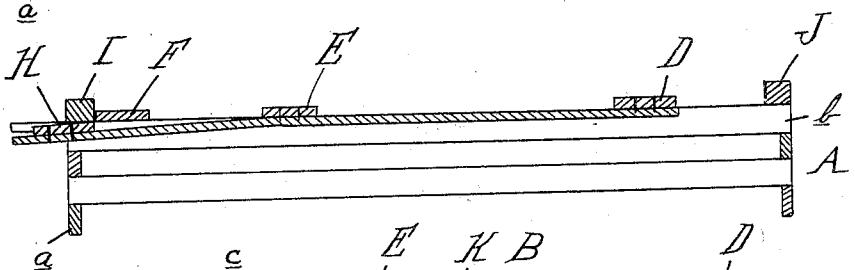
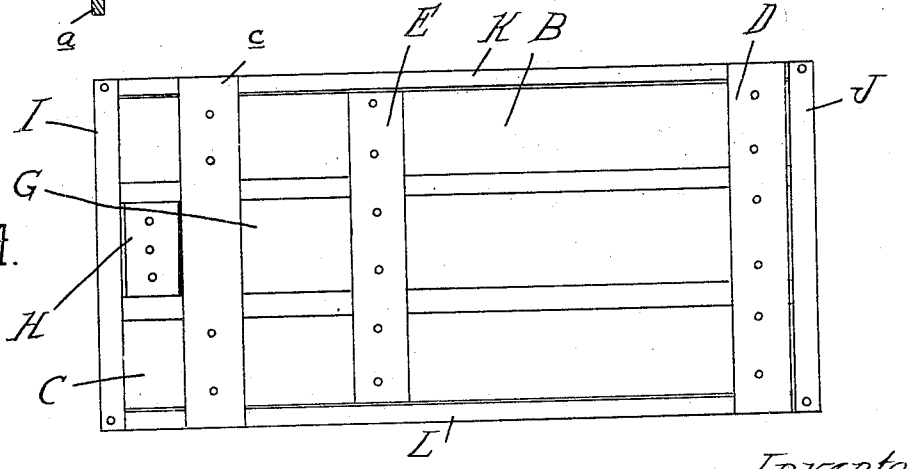


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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CRATE.

960,484. Specification of Letters Patent. Patented June 7, 1910.

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To all whom it may concern:

Be it known that I, WILLIAM BEEHLER, a citizen of the United States of America, residing at Owosso, in the county of Shiawassee and State of Michigan, have invented certain new and useful Improvements in Crates, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates generally to crates, and more particularly to a closure therefor in the form of a top or bottom member, and it consists in the novel and simple construction of the closure, in the peculiar arrangement of parts, and in certain details of construction as will be more fully hereinafter set forth.

In the drawings,—Figure 1 is a perspective view of a closure embodying my invention; Fig. 2 is a vertical central section through the upper portion of a crate, showing the closure in place; Fig. 3 is a view similar to Fig. 2, showing the closure in a different position; and Fig. 4 is a plan view.

In the drawings thus briefly described, A represents the crate, which may be of any approved construction, preferably of the type wherein the body is composed of transversely alining slats, as *a*. The end walls of the crate are provided with lateral openings *b* near their upper edges, in which openings the edge portions of the top or bottom of the crate are adapted to extend.

B represents the closure, which in this instance I have shown in its preferred form and also as constituting the crate cover or lid. It is composed of a series of transversely alining strips, as C, preferably three in number, united by cross cleats, the cleats arranged preferably one at each end of the series and one intermediate the ends, as illustrated. One of the end cleats D is united to each strip and projects beyond the sides of the series forming the cover, forming projections *c* that are adapted to engage the crate sides and form a support for the cover. E represents the intermediate cleat, also united to each of the strips. F is a complementary end cleat united to each of the outer strips, as shown, and being disconnected from the inner strip G so as to permit the end portion of the latter from its extremity to the intermediate cleat to be depressed or moved transversely in relation to the remainder of the cover. Located upon the extremity of this latter strip and outwardly beyond the cross cleat F is a locking member H in the form of a stop block adapted to engage one of the end bars I of the crate body, as hereinafter set forth, to lock the cover in position.

The cover or closure member is of a length to exceed the distance between the inner edges of the end bars I and J so as to permit of the insertion of the cover ends within the openings, and the width of the cover is such as to permit the same to fit between the crate sides K and L. The extremities of the cross cleat F project beyond the sides, and these projections, together with the projecting portions of the cleat D, are adapted to engage the side bars K and L of the crate body, forming a supporting means for the closure.

In applying the cover to the crate, the end portion of the closure carrying the stop or locking member is inserted within one of the end openings, as B, of the crate body, as indicated in Fig. 3. The cross cleat F limits the extent of insertion, and is so positioned upon the strips as to bring the stop or locking member H beneath the end bar of the crate body, as shown. The cover or closure is then lowered, depressing the movable portion of the strip G until the extensions or projections upon the strip D contact with the crate sides. A lateral sliding movement is then given to the body until the strip D contacts with the bar J, this travel being sufficient to withdraw the stop H from beneath the bar I. The strip G then resumes its initial position in alinement with the other strips, forming the crate cover, and the locking member adjoins the bar I, forming a stop, which in connection with the cleat D locks the cover against endwise movement. The method of removal of the closure will be obvious. The spring strip carrying the locking block or member is first depressed, the closure forced endwise in the direction of the locking block until the opposite end of the cover is free from the end bar of the crate, and then the cover withdrawn by a shifting movement in a direction opposite to the bar I.

By constructing the crate and its cover so that the forward cross bar or cleat will approximate the end of the longitudinal strips C and projecting ends of the cleat F, a support is formed for the entire cover at the

locking end, substantially as at the opposite end. Another advantage in the employment of a single spring member with its locking block H is that the block is positioned close to the cleat F which latter thereby serves as a back stop for the block.

What I claim as my invention is,—

1. In a crate, the combination with end parts provided with top cross bars and with openings therebelow, of a closure therefor comprising a plurality of slats of a length to project into both of said openings, a cleat rigidly secured to all of said slats at one end of the closure and projecting laterally beyond the same, said cleat being adapted to lie in close proximity to one of the cross bars at the end of the crate when the closure is in position, a cleat securing the ends of the outermost slats only at the other end of the closure, whereby the intermediate slat is free to yield, a locking block carried by the yieldable end of the intermediate slat, one edge of said locking block being adapted to lie in close proximity to the adjacent top cross bar at the end of the crate when the closure is in position, and the other edge of said locking block being separated from the adjacent cleat a distance less than the width of said top cross bar at the end of the crate.

2. In a crate, the combination with end parts provided with top cross bars and with openings therebelow, of a closure therefor comprising a plurality of slats of a length to project into both of said openings, an overlying cleat rigidly secured to the ends of all of said slats at one end of the closure, said cleat being adapted to lie against one of the cross bars at the end of the crate when the closure is in position, an overlying cleat securing the ends of the outermost slats only at the other end of the closure whereby the intermediate slat is free to yield, said cleat being spaced from the adjacent top cross bar at the end of the crate when the closure is in position, and a locking block carried by the yieldable end of the intermediate slat and adapted to normally substantially fill the space between the cleat of the closure and the adjacent top bar at the end of the crate.

3. In a crate, a body having openings in its opposite end walls near the upper edges thereof, a closure of a length to project into both of said openings and composed of a series of uniform slats, a cleat rigidly connected to all of said slats at one end of the closure and projecting laterally beyond the same, a cleat at the other end of the closure rigidly connected to the outermost slats of the closure only whereby the intermediate slat is free to yield the ends of said cleat projecting laterally beyond the sides of the closure, an intermediate cleat rigidly secured to all of said slats, and a block secured to the yieldable portion of the intermediate slat of the closure and of a size to normally substantially fill the space between one of the end walls of the crate body and the adjacent end cleat of the closure.

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

WILLIAM BEEHLER.

Witnesses:
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