No. 699,107. Patented Apr. 29, 1902.

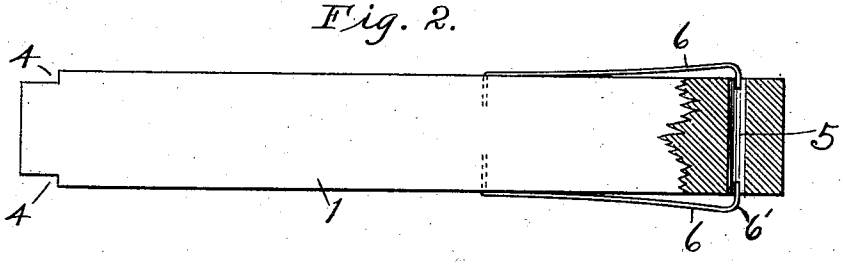
C. W. HILLENBRAND.

CRATE FASTENER.

(Application filed Jan. 20, 1902.)

(No Model.)

Fig. 2.



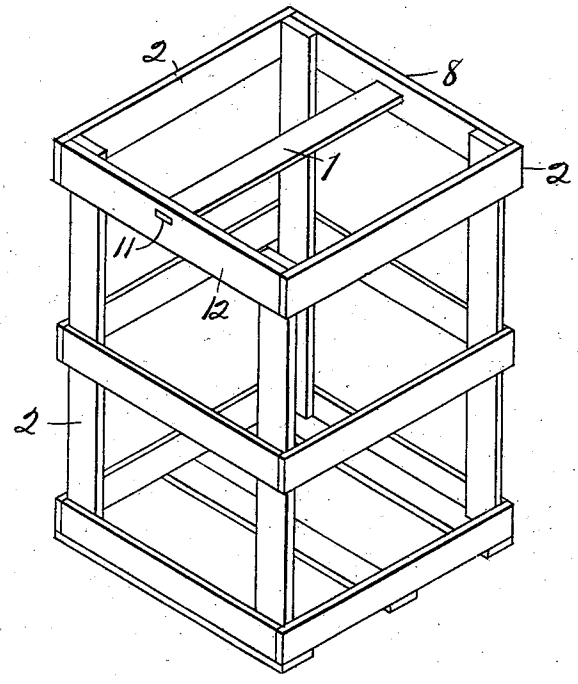


Fig. 1.

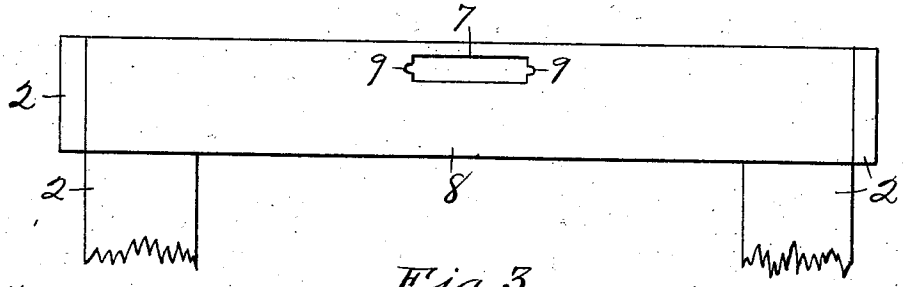


Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES W. HILLENBRAND, OF KANSAS CITY, KANSAS.

CRATE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 699,107, dated April 29, 1902.

Application filed January 20, 1902. Serial No. 90,387. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HILLENBRAND, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented new and useful Improvements in Crate-Fasteners, of which the following is a specification.

My invention relates to crate-fasteners; and the objects of my invention are to dispense with driving and pulling nails in closing and opening crates, to save time, and to employ hard wood in the construction of the crates. At present shipping-crates are closed by nailing in cross-pieces, and the frame of the crate has to be of soft wood to permit the nails to be quickly driven and pulled. I attain the above-named objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is an isometrical view of a crate provided with my invention. Fig. 2 is an enlarged detached view, partly in section, of the locking-piece. Fig. 3 is a side elevation of the frame-piece into which the shouldered end of the locking-piece is inserted.

In Fig. 1, 2 designates a crate. 1 designates the locking-slat in position. This slat is a wooden bar cut away at one end, as at 4 4 in Fig. 2, forming shoulders, the purpose of which is described hereinafter. Through the opposite end of the slat 1 a transverse hole 5 is drilled, and two bent-wire springs 6 6 have their inner ends driven into the slat 1, as shown by dotted lines, and their outer ends bent inwardly and entering the hole 5. A slot 7 for the passage of the locking-slat 1 is cut in one of the crate-pieces 8, and notches 9 9 are cut at the ends of slot 7 for passage of the wire springs 6 6. A slot 11 to receive the shouldered end of the locking-slat 1 is cut in the crate-piece 12 opposite piece 8.

To close and lock the crate, the slat 1 is inserted in slot 7 and pushed across until its shouldered end enters slot 11. When the shoulders 4 4 strike the piece 12, the springs 6 6, which have been held in against the slat 1 by the ends of slot 7, are released, and the bent portions 6′ of the springs projecting past the ends of slot 7 hold the locking-slat 1 in position.

The locking-slat 1 may be withdrawn by first pressing the springs 6 6 together, so that they will pass through the slot 7. The locking-slat may then be removed through slot 7.

When the locking-slat 1 is in position, its shoulders 4 4 limit its movement in one direction, while the springs 6 6 limit its movement in the opposite direction.

More than one locking-slat may be employed if preferred.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination of a crate having opposite slotted members, the slot 7 in one of said members having a notch 9 at each end thereof, a slat 1 having notches 4 in one end thereof, a transverse opening 5 in the opposite end thereof, and a pair of spring-wire catches, one end of each catch being firmly secured in said slat, and the opposite end of each catch being bent into said opening; the end of said slat provided with said catches being adapted to slide through said slot 7, substantially as described.

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

CHAS. W. HILLENBRAND.

Witnesses:
O. M. VAN DORSTON,
M. L. LANGE.