(No Model.)

T. L. FIRESTONE.

BOX FASTENER.

No. 457,311. Patented Aug. 4, 1891.

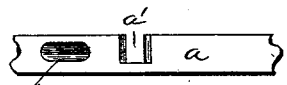


Fig. 5.

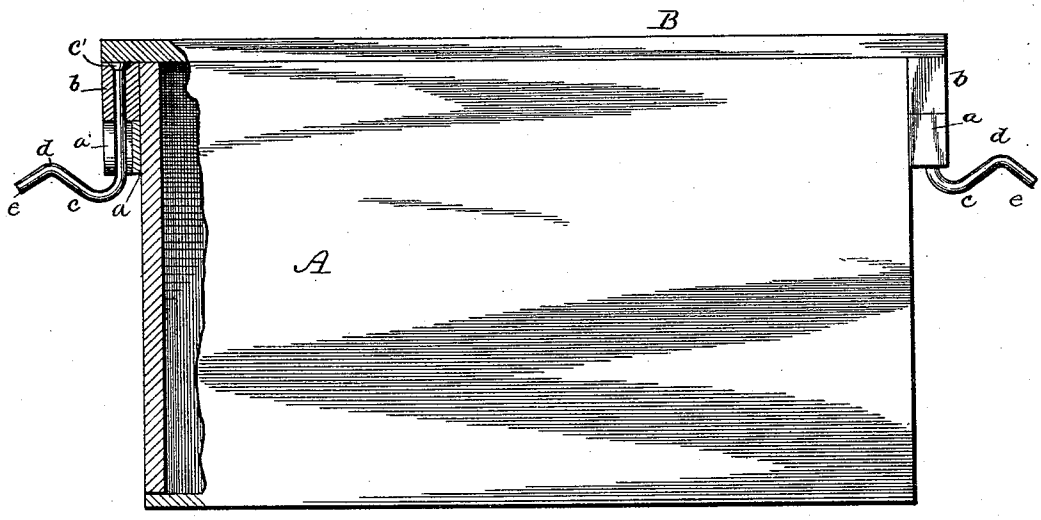


Fig. 1.

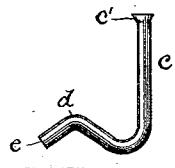


Fig. 3.

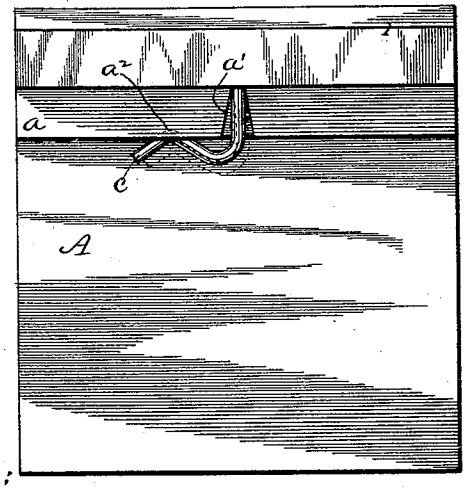


Fig. 2.

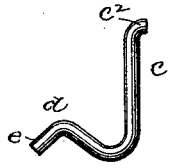


Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

TRUMAN L. FIRESTONE, OF CLEVELAND, OHIO, ASSIGNOR TO MILLARD F. SMITH, OF SAME PLACE.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 457,311, dated August 4, 1891.

Application filed April 13, 1891. Serial No. 388,682. (No model.)

To all whom it may concern:

Be it known that I, TRUMAN L. FIRESTONE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Box-Cover Fastenings, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide a simple and convenient fastening device for the covers of boxes, my improved fastener being more particularly intended for removably securing the covers of crates or boxes used for the transportation of eggs, small fruits, &c.

In the drawings, Figure 1 is a sectional side view of a box provided with my improved fasteners, and Fig. 2 is an end view of the same. Figs. 3 and 4 are detail views of the fasteners. Fig. 5 is a partial detail view of one of the cleats.

A denotes the box, and B the cover thereof, said cover being longer than the box, so that its ends will overhang the same, and to the under side of the overhanging ends of the said cover are secured the cleats *b*. The fasteners *c* each consists of a piece of bent spring-wire, preferably of brass or steel, of sufficient stiffness to securely hold the cover when turned to the position shown in Fig. 2. The fasteners are pivoted in the cleats *b*, as shown in Fig. 1, and are provided with heads *c'*, Figs. 1 and 3, or with short bends c^2, Fig. 4, to hold them in the said cleats. The heads *c'* are preferred, as the bends c^2 require a larger depression or countersink to turn in. The lower bent end of each fastener extends down some distance below the cleat *a*, with which it is to be engaged, and then turns upward to provide a bearing portion *d*, beyond which is a downwardly-inclined end *e*.

The box is provided at its ends with cleats *a*, having downwardly-flaring slots *a'*, through which the fasteners are passed when turned to the position shown in Fig. 1, when the cover is to be placed on the box or removed therefrom, and when the cover is to be secured the fasteners are turned to the position shown in Fig. 2, with their horizontal arms beneath the cleats *a*, the said cleats being preferably provided on their under sides with recesses a^2, into which the bearing portions *d* of the fasteners are sprung to prevent accidental displacement.

When the cover is to be removed, the fasteners are released by pressing down on their outer ends to remove the bearing portions *d* of the fasteners from the recesses a^2 of the cleats *a*, the shanks of the said fasteners springing in the flaring slots *a'*, as denoted by the dotted lines in Fig. 2, to permit of this action. The fasteners may then be turned outward to the position shown in Fig. 1, and the cover will now be free to be lifted from the box.

To adjust or tighten the spring-fasteners, so that they will hold more strongly, it is only necessary to place the finger in the outer bends thereof and pull upward to bend the horizontal parts of the fasteners upward a little.

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

The combination, with the box A, having end cleats *a*, provided with the slots *a'* and having in their under sides the recesses a^2, of the cover B, having the cleats *b*, and the bent spring wire or metal fasteners *c*, pivoted in the said cleats *b*, and having their lower bent ends extended down some distance below the said cleats *a*, and being then turned upward to form the bearing portions *d* to enter the said recesses a^2, and having beyond the said bearing portions *d* the downwardly-inclined ends *e*.

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

TRUMAN L. FIRESTONE.

Witnesses:
L. FEWSMITH,
E. GUNTON.