

No. 713,233.

Patented Nov. 11, 1902.

C. L. MELLINGER.
BOX FASTENER.

(Application filed Apr. 26, 1902.)

(No Model.)

Fig. 1.

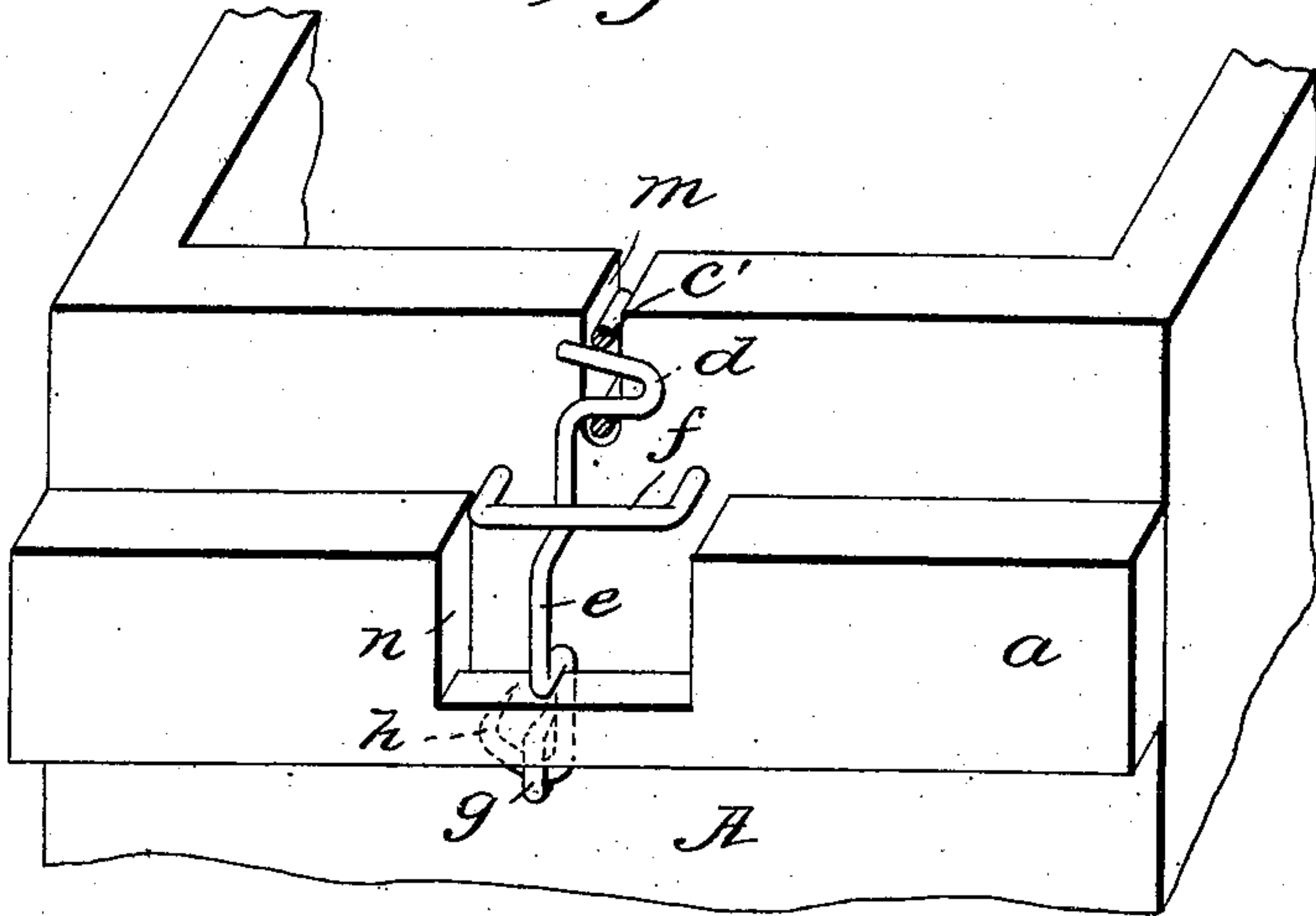


Fig. 2.

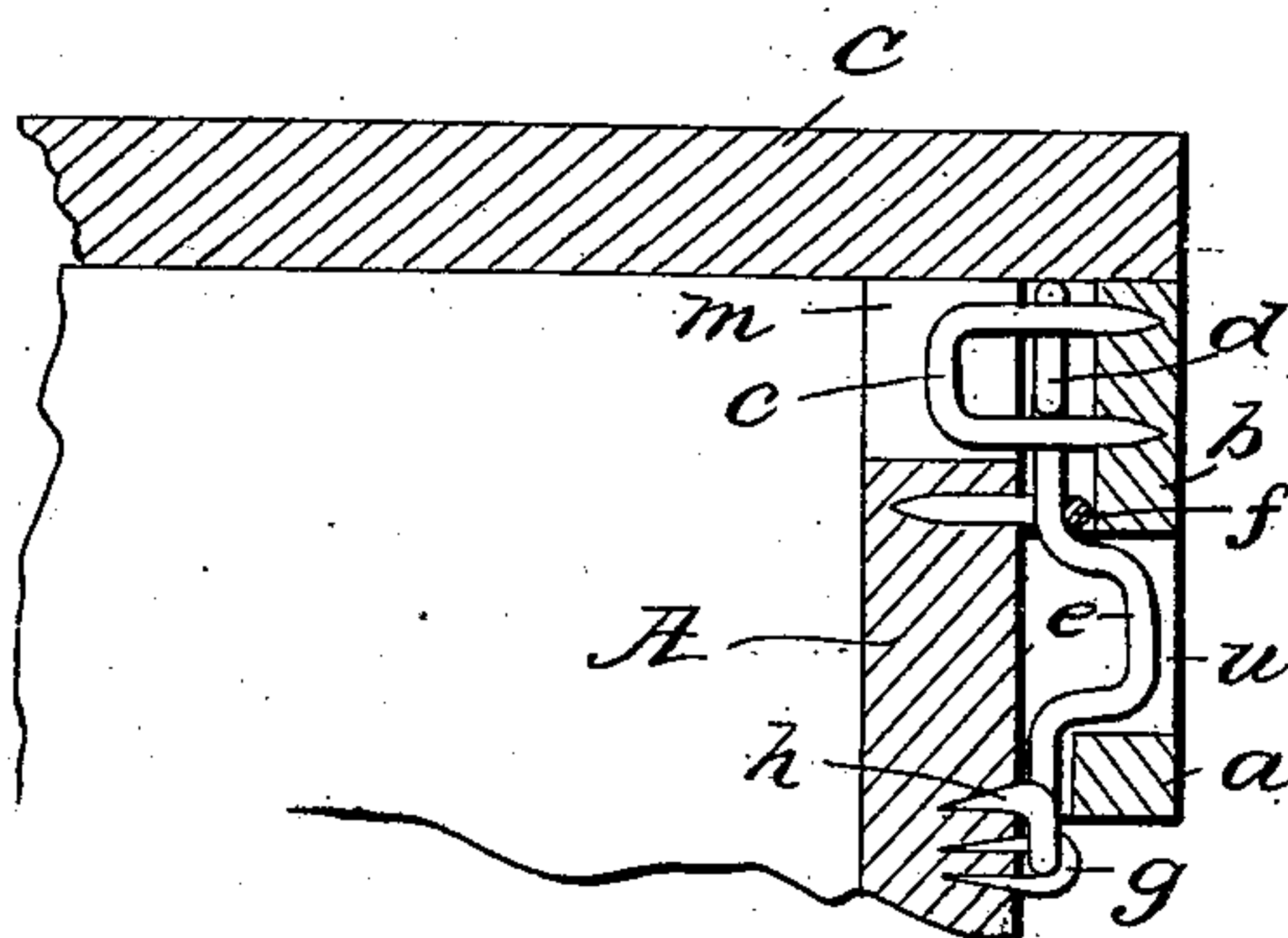
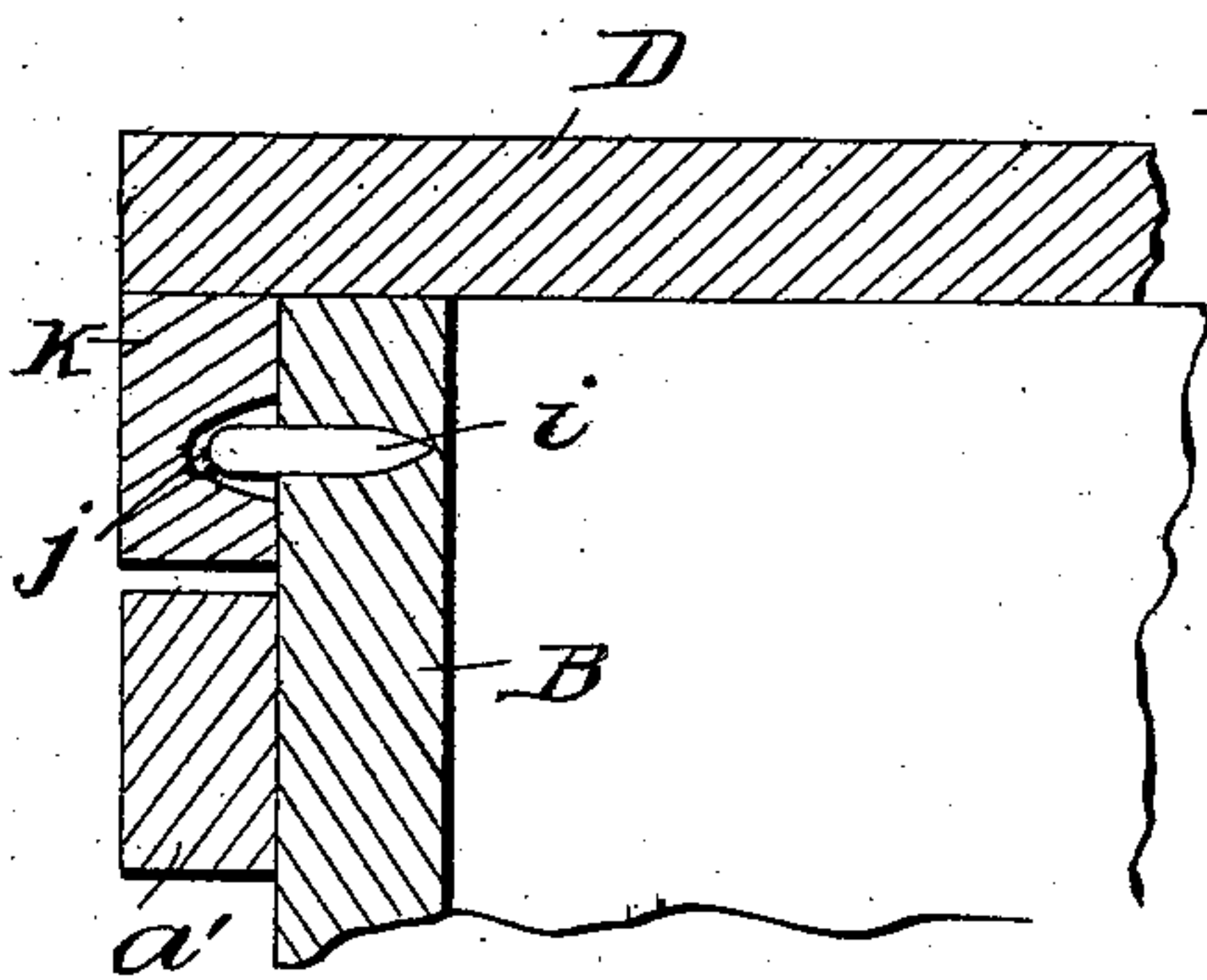
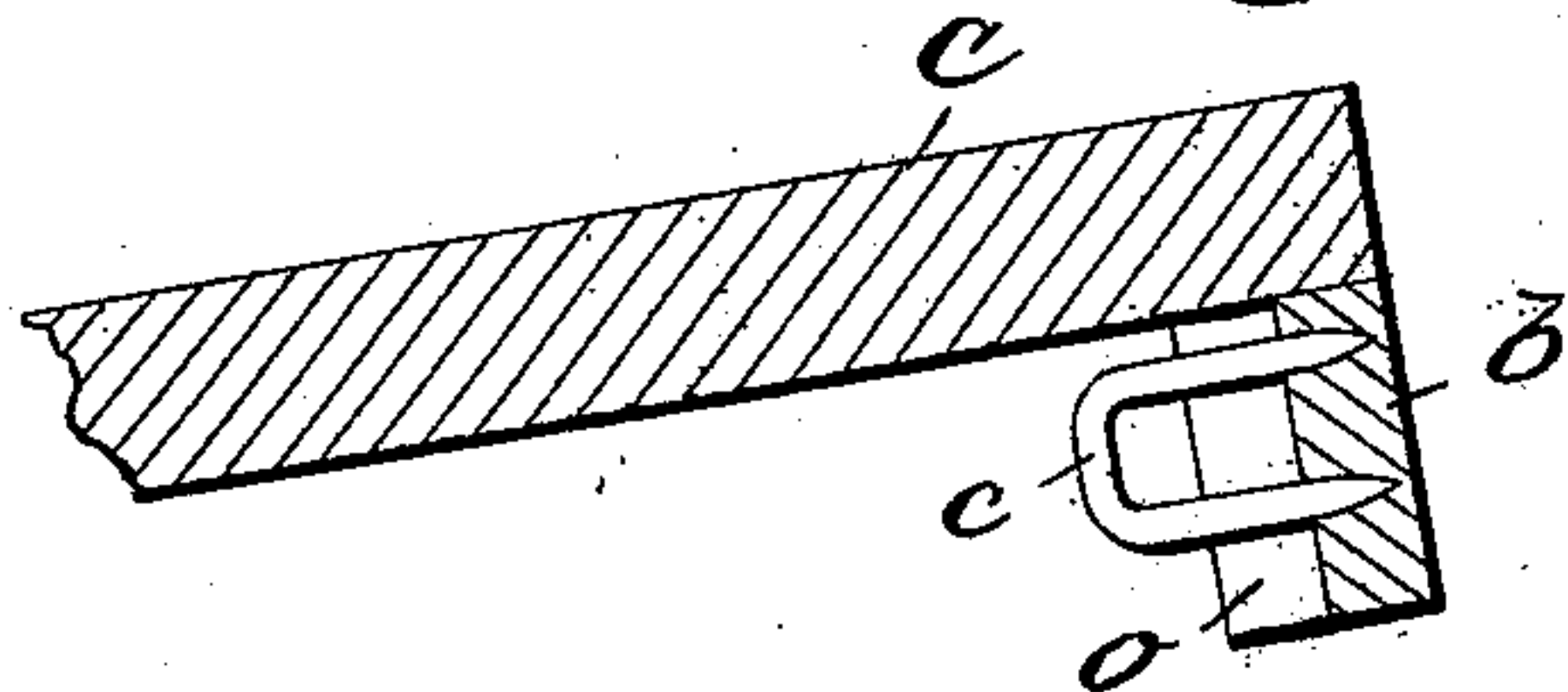
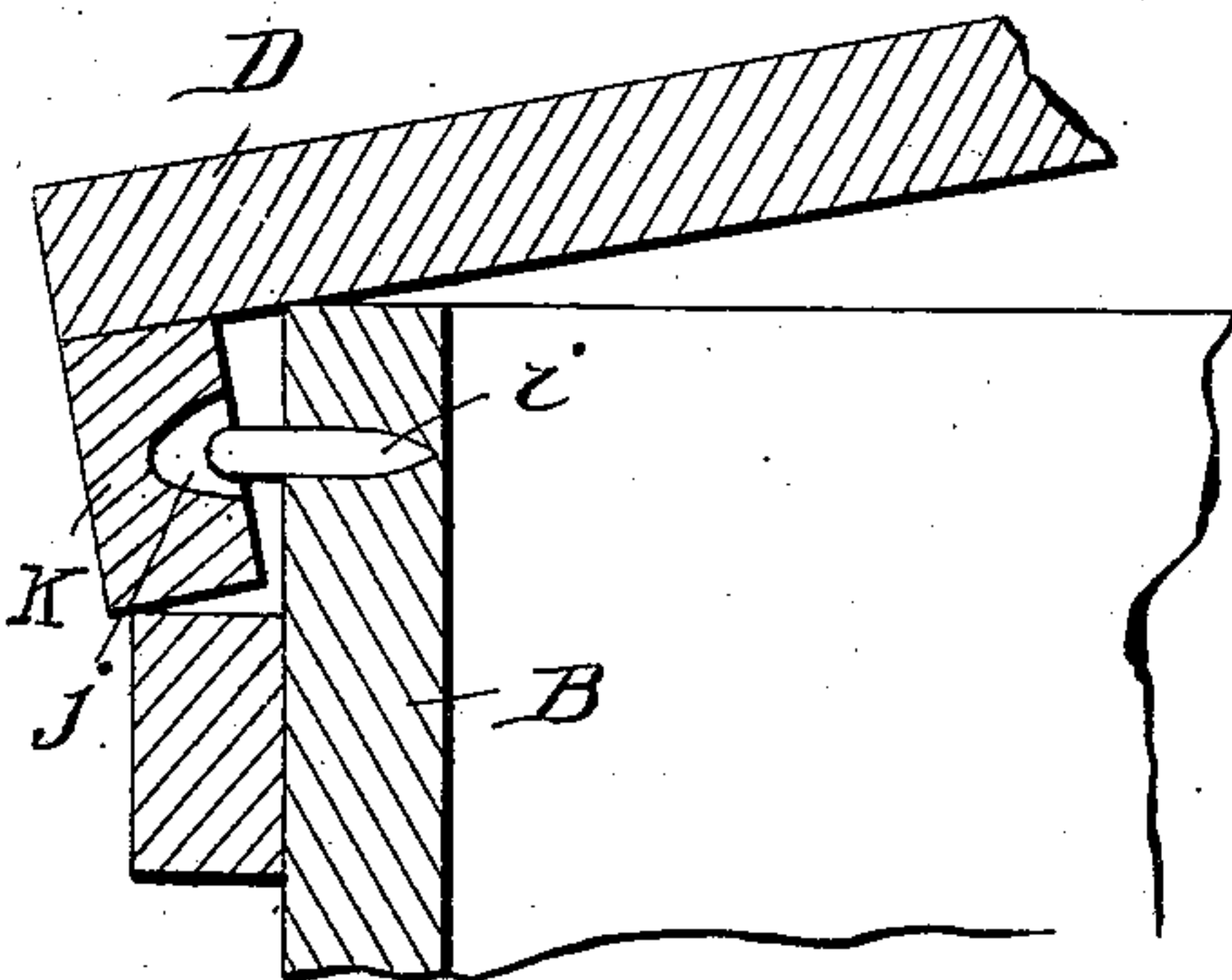


Fig. 3.



Witnesses:
H. R. Smith
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per W. B. Swartz Atty.

UNITED STATES PATENT OFFICE.

CURTIS L. MELLINGER, OF PLAIN, OHIO.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 713,233, dated November 11, 1902.

Application filed April 26, 1902. Serial No. 104,903. (No model.)

To all whom it may concern:

Be it known that I, CURTIS L. MELLINGER, a citizen of the United States, residing at Plain, in the county of Wayne and State of Ohio, have invented a new and useful Box-Cover Fastener, of which the following is a specification.

My invention relates to box-cover fasteners. Its object is to provide improved means for securing a separable cover upon a box or crate, with special reference to crates for eggs and other merchandise requiring a cover for storage and shipment; and it consists of the novel fastening device hereinafter set forth and described.

My invention is illustrated by the accompanying drawings, in which similar letters of reference indicate like parts.

Figure 1 is a front view of a box, showing my improved hook-fastener for the cover thereof. Fig. 2 is a vertical longitudinal cross-section of a box and cover embodying my invention. Fig. 3 is a similar view showing the cover elevated and partially detached and the fastening mechanism therefor.

In the drawings, A is the front end of the box. B is the rear end of the same. C is the front end of the cover, and D is the rear end thereof.

a a' are strips secured across the ends of the box near the upper part thereof. Strip a is cut away at or near its center to make a horizontal notch u for access to the spring-catch, as shown, Fig. 1. The upper edge of the front end of the box is provided with a transverse mortise or notch m , adapted to engage the staple c , which is attached to the inner surface of a cross-strip b , which forms an overhanging lip or margin for the front end of the cover C. Space is provided between said lip and the upper front surface of the box for play of the spring-catch d therein, as shown, Fig. 2.

My improved spring-fastener is constructed of a single piece of substantial spring-wire bent and shaped with an upward-slanted portion beyond the hook d to act automatically when the staple c moves down its incline to enter the notch and engage the hook c' , as shown, Fig. 1. It is further provided with an outwardly-bent portion e , adapted to project forwardly in a notch of the cross-strip a .

A longitudinal staple f extends across the arm of the fastener and bears downwardly upon and against an outwardly-bent portion e thereof, which also serves as a finger-catch to disengage the hook d , and thus coacts with the fastening at the lower end of the spring-hook in bearing the strain of the lock, thereby giving the same added strength and security.

The fastener is securely attached to the box and held in proper position by a sharp upward turn in the form of a hook, over which is fastened the staple g . The end of said upwardly-bent portion is bent inwardly toward the box and securely attached thereto, thereby giving full energy to the spring of the hook-fastener. The lower parts of said fastener are preferably further secured and concealed by the overlapping lower part of the cross-strip a . At or near the upper part of the opposite end of the box I make separable hinges for the cover, and for this object employ one or more projections i , which may be of either wood or metal and driven or screwed into the body of the box. The adjacent end of the box-cover is provided with a downwardly-extending lip or margin k , similar to that used at the front end of the box. Its inner surface is provided with notches j to receive the hinge projections i , and thereby securely hold the rear end of the cover in position on the box, both laterally and vertically. When the spring-hook is disengaged from the staple c , the cover may be raised and removed from the box, the hinged parts separating readily, as shown, Fig. 3. If preferred, the hinges may be reversed—that is, the projections i and the notches j may be reversed in relation to their described positions on the margins of box and cover, respectively—and two or more hook-fasteners may be employed in a manner similar to that shown. I do not limit myself to the precise form of construction, as some of the parts may be modified to suit the trade.

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

1. The combination with a box and cover therefor, said cover provided with an end cross-strip having an opening between its inner surface and the body of the box; of a fas-

tening device comprising a spring - hook adapted to movement sidewise between said cross-strip and the adjacent part of the box, to engage a coacting staple in the cover, said
5 fastener provided with a raised portion below the hook thereof projecting outwardly and adapted to engage and bear underneath and against a cross-bar or staple secured to the body of the box, the lower end of said fastener being attached to the body of the box
10 by a bent portion thereof, substantially as set forth.

2. The combination with a box and cover; of a fastener secured to the box by a bent
15 portion thereof, said fastener having a hook

formed at its upper end; a staple attached to the inner surface of the cover to engage said hook; a notch in the upper edge of the box to admit said staple; an intermediate cross-bar attached to said box below said hook, 20 and said fastener further provided with a raised portion adapted to engage underneath and against said cross-bar, substantially as set forth.

In witness whereof I hereunto set my hand 25 this 3d day of March, A. D. 1902.

C. L. MELLINGER.

Witnesses:

P. J. KEEHN,
E. J. MCAFEE.