No. 648,686.

Patented May 1, 1900.

J. T. FERRES & J. G. REBER.

BOX.

(Application filed Apr. 8, 1899.)

(No Model.)

Fig. 1.

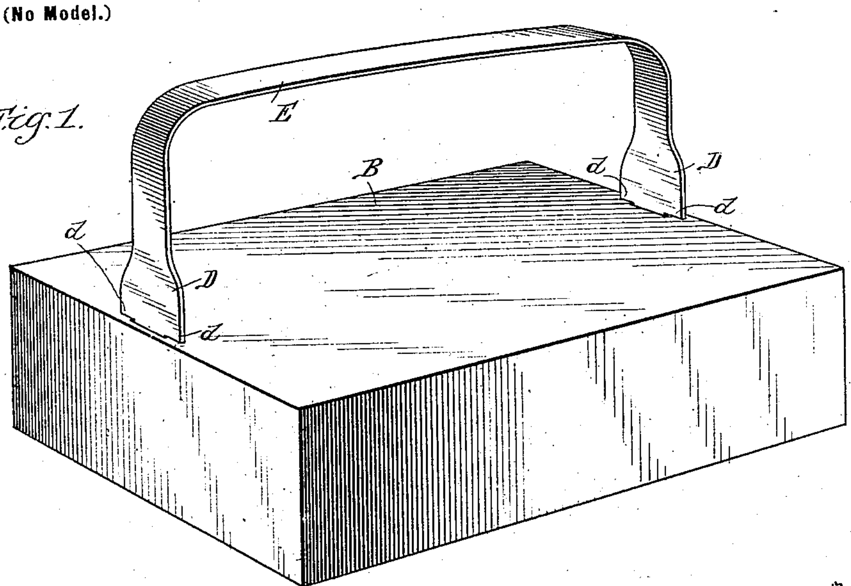


Fig. 2.

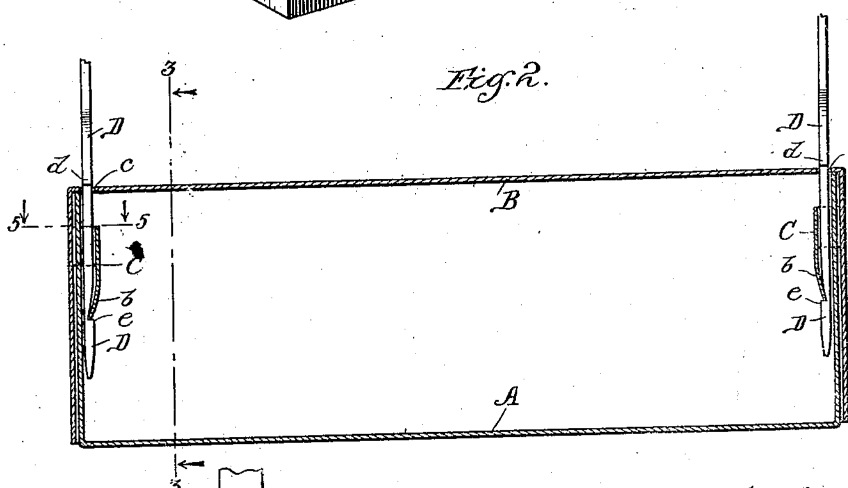


Fig. 3.

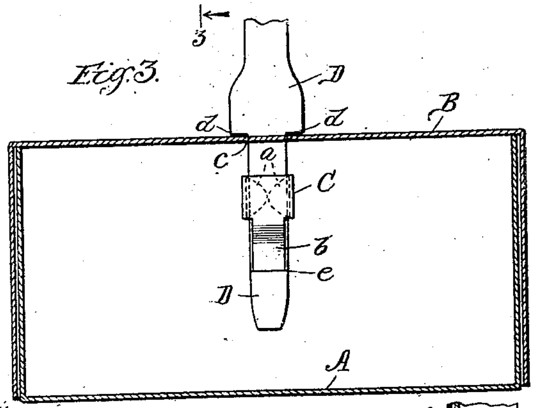


Fig. 4.

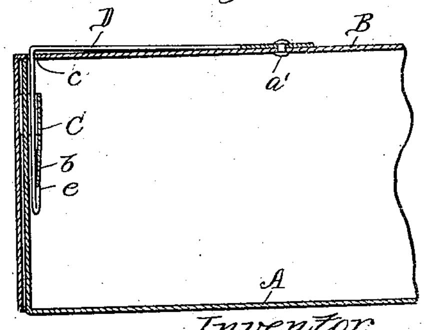
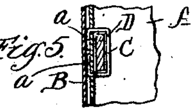


Fig. 5.



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UNITED STATES PATENT OFFICE.

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BOX.

SPECIFICATION forming part of Letters Patent No. 648,686, dated May 1, 1900.

Application filed April 8, 1899. Serial No. 712,317. (No model.)

To all whom it may concern:

Be it known that we, JEFFREY T. FERRES, residing at Anderson, in the county of Madison, in the State of Indiana, and JOHN G. REBER, residing at Chicago, in the county of Cook, in the State of Illinois, citizens of the United States of America, have invented a certain new and useful Improvement in Boxes, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

Our invention has for its object the provision of simple and efficient means for securely locking the lids of boxes upon the bodies of the boxes to prevent unauthorized access to the contents of the latter without such disruption of the locking means or mutilation of the box as will insure subsequent detection. It has been designed more especially for use in connection with cheap boxes made of paper or of the various kinds of paper-board, and its novelty will be hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of a closed box having its lid locked upon its body by means of our invention and provided with a handle; Fig. 2, a middle vertical section of the same lengthwise of the box; Fig. 3, a vertical cross-section on the line 3 3 of Fig. 2; Fig. 4, a vertical section corresponding to Fig. 2 of one end of the box, showing a modified form of locking-tongue; and Fig. 5, a sectional detail on the line 5 5 of Fig. 2.

The same letters of reference are used to indicate corresponding parts in the several views.

In the present instance our invention is shown applied to a rectangular paper-board box, of which the body A and lid B are substantial counterparts of each other, the lid being slightly the larger to fit down over and substantially inclose the body of the box. The particular manner of forming the body and lid of the box is immaterial. They may be folded up of suitably cut and scored blanks in the usual manner, and may be also scored in such a way as to enable them when separated to be pressed out in flat form for compact storage and shipment, as is common.

Secured to the opposite walls of the body A of the box are two sheet-metal plates C, provided with tongues *a*, passed through the walls of the body of the box and clenched upon its outer face, as shown more particularly in Fig. 5 and in dotted lines in Fig. 3. The body of the plate C does not fit tightly against the wall of the box, but, on the contrary, stands a slight distance away therefrom to permit the locking-tongue D, hereinafter described, to pass downward between it and the wall of the box. Depending from the upper part or body of the plate C is an outwardly-bent tongue *b*, whose lower edge normally bears against or stands immediately adjacent the wall of the box, so that the locking-tongue heretofore referred to will have to spring this tongure or catch *b* inward in passing downward between it and the wall of the box.

The top of the lid B of the box is provided at each end with slits or openings *c* immediately over the plates C for the passage of the locking-tongues D. Under the construction shown in Figs. 1, 2, and 3 these locking-tongues constitute the opposite depending ends of a handle E, which may be formed of a piece of bent wood veneering, paper-board, or other suitable material. The lower portions of its depending opposite ends, which pass downward through the slits *c* in the lid of the box, are reduced in width, as shown in Fig. 3, thereby forming at the opposite ends of said slits shoulders *d*, which limit the downward movement of the ends of the handle or tongues D. Near their lower ends these tongues are provided upon their inner faces with recesses or notches forming abrupt upwardly-facing shoulders *e*, adapted to be engaged by the tongues *b* of the plates C when the locking-tongues D are passed downward through the slits *c* in the lid and through the guideways formed by the plates C until the shoulders *d* contact with the top of the lid B. When the

shoulders *e* become thus engaged by the tongues *b*, as in Figs. 2 and 3, it will be seen that the tongues D cannot be withdrawn, but, on the contrary, are securely attached to the body of the box, while the presence of the shoulders *d* above the top of the lid B prevents the latter being lifted off the body A, and the lid thus becomes securely locked to the body of the box. When the lid has thus been locked upon the body, access can be had to the interior of the box again only by disrupting or mutilating either the box or the locking devices, and of course cannot be done without subsequent detection. When it is desired to open the box, the locking-tongues may be cut off immediately beneath the shoulders *d* and the lid of the box be then slid upward off the body, leaving the tongues D engaged by the catches of the plate C, or the box may be cut open with a knife to gain access to its contents. In Fig. 4 a similar provision for locking the lid upon the box is shown independent of any handle for the box. In this instance the locking-tongue D for each end of the box is secured to the top of the lid B by means of a rivet, staple, or other suitable means, as at *a'*, and at its opposite end is bent at right angles and passed downward through the slit *c* in the lid B and between the locking-plate C and the end wall of the box, and the shoulder *e* upon its lower end is engaged by the spring-tongue *b* of the plate C, as in the construction previously described. In this instance the locking-tongues D may be conveniently formed of strips of the same material as the body and lid of the box, and the shoulders *e* upon their lower ends may be conveniently formed by reversely bending the ends of the tongues D upon themselves and securing the reversely-bent end of the tongue to the body thereof by paste or glue or other suitable means. Under this construction the tongues D may, if desired, be of the same width throughout their length, since there is no necessity for shoulders *d* upon them as where the tongues constitute the ends of a handle.

It will be understood that the essential feature of our invention consists in suitable catches secured upon the end walls of the body of the box and adapted to engage locking-tongues passed downward through openings in the lid of the box and arranged to hold the lid upon the body when themselves engaged by the catches upon the end wall of the body. Such being the case, it will be evident that the particular construction and arrangement of the catches is not material, or at least not essential, nor the particular formation of the locking-tongues which coöperate with them.

Boxes such as above described provided with such locking devices are particularly adapted, for instance, to the shipment of "settings" of fancy-poultry eggs, for which it is desirable to provide an inexpensive box, but at the same time one which cannot be readily opened by an unauthorized person and the fancy eggs replaced by inferior ones without subsequent detection, due to mutilation of the box or the fastening devices. When the boxes are used for this purpose, they will of course be provided with suitable cell-cases for the reception and protection of the eggs.

Having thus fully described our invention, we claim—

1. The combination of the box-body A, lid B, catches C and coöperating tongues D said lid having a depending portion extending below the top of the body and adapted to prevent access to the catch, substantially as and for the purpose described.

2. The combination of the box-body A, lid B, catches C, and handle E immovably held when the lid is in place on the box and having the depending opposite ends provided with the shoulders *d* and coöperating with the catches C, in the manner and for the purpose described.

3. The combination of the box-body A, the catches C secured to the walls thereof, the lid B provided with the openings *c* above the catches C, and the locking-tongues D passed downward through the openings *c* and coöperating with the catches C, said lid having a depending portion extending below the top of the box-body and adapted to prevent access to the catch, substantially as and for the purpose described.

4. The combination of the box-body A, the catches secured to its walls and consisting of the metal plates C having the depending spring-tongues *b*, the lid B having the openings *c* above the plates C, and the locking-tongues D passed downward through the openings *c* and provided with the shoulders *e* coöperating with the spring-tongues *b*, substantially as and for the purpose described.

5. The combination of the box-body A, the catches secured to the end walls thereof and each consisting of the metal plate C having the tongues *a* passed through and clenched upon said end walls and provided with the depending spring-tongue *b*, the lid B having the openings *c* above the plates C, and the handle E having the depending opposite ends D provided with the shoulders *d* adapted to bear upon the top of the lid B, and with the portions below said shoulders adapted to pass downward through the openings *c* in the lid B and provided with the shoulders *e* coöperating with the spring-tongues *b* of the catch-plates C, substantially as and for the purpose described.

6. The combination of a box-body, catches on the inner walls of the box-body, a telescopic lid, and tongues for holding the lid on the box coöperating with said catches said

lid acting to guard the parts and prevent the catch and tongue being disengaged, substantially as described.

7. The combination, of a box-body, a catch secured to one wall thereof and comprising a metal plate having side tongues *a* passed through and clenched upon said box-wall, and a depending spring-tongue, a box-lid, and a tongue for holding said lid, adapted to pass between the box-wall and said plate and between said holding-tongues *a* and having a shoulder coöperating with said spring-tongue, substantially as described.

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