

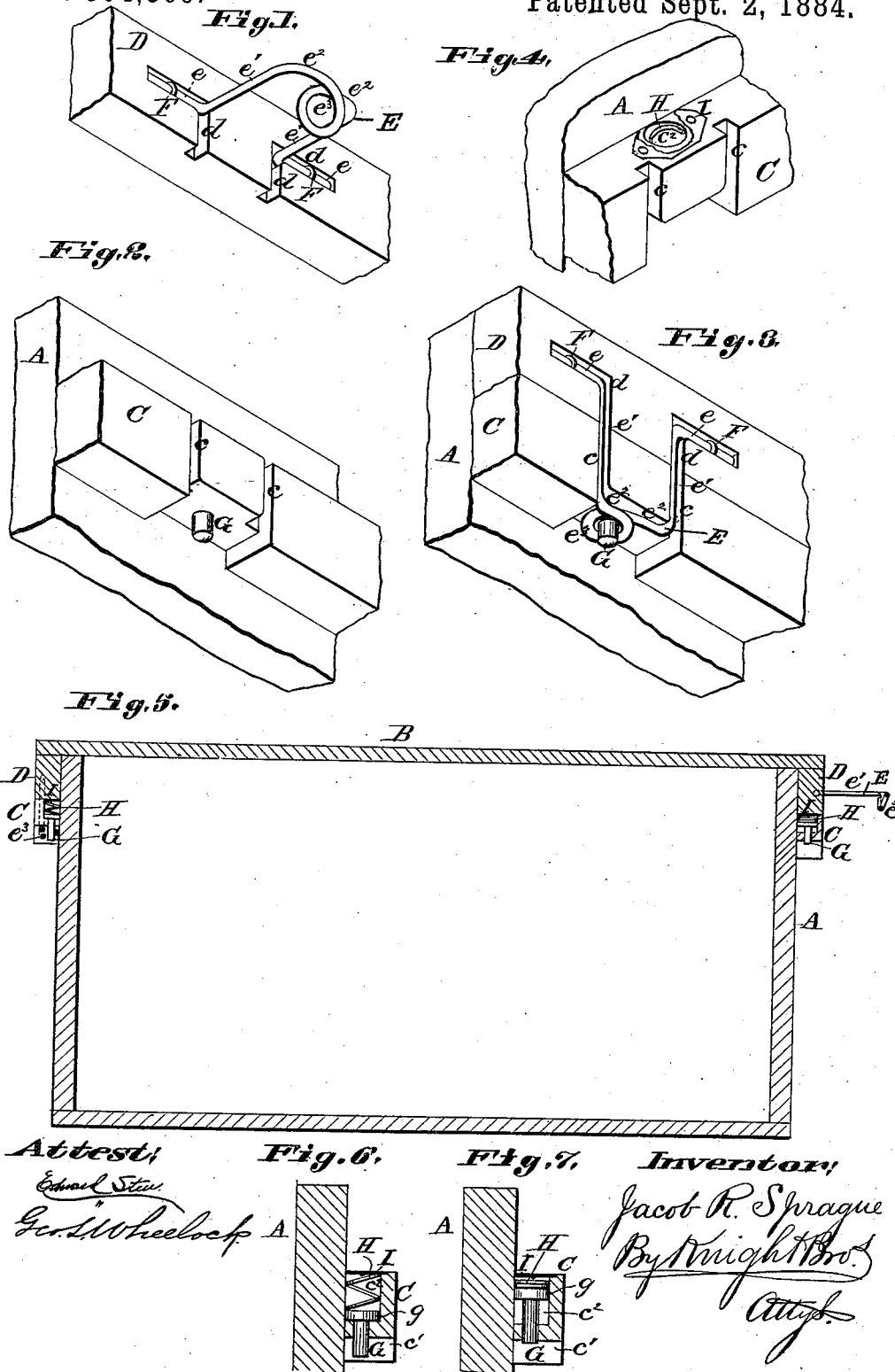
(No Model.)

J. R. SPRAGUE.

BOX FASTENER.

No. 304,369.

Patented Sept. 2, 1884.



Attest:

Edward Stear

Geo. L. Wheelock

Fig. 6.

Fig. 7.

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UNITED STATES PATENT OFFICE.

JACOB R. SPRAGUE, OF ST. LOUIS, MISSOURI.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 304,369, dated September 2, 1884.

Application filed March 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB R. SPRAGUE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Fastenings for Box-Lids, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This is a fastening intended, primarily, for egg cases or boxes, but which is applicable to chicken-coops, and boxes and cases for many purposes.

My invention relates to those fastenings for coops, boxes, or cases in which a loop hinged to either the lid or body engages a projection on either the body or lid to fasten the lid to the body.

My improvement consists in certain details of construction tending to enhance the value of such fastenings, as hereinafter described, and pointed out in the claims.

Figure 1 is a perspective view of the loop, showing it hinged to the end cleat of the lid. Fig. 2 shows a part of a body-cleat and end of box or case in perspective. Fig. 3 is a detail perspective view showing the loop hinged to the lid-cleat and engaging the body-cleat. Fig. 4 is an upper perspective view of the detail illustrated in Fig. 2. Fig. 5 is a longitudinal vertical section of an egg-case, showing one of the loops engaged and the other free. Figs. 6 and 7 are enlarged detail sections, showing the locking-pin respectively in its extended and retracted positions.

I shall describe the improvement as applied to an egg-case, (the box used in shipping eggs;) but it is quite evident that the improvement is of very general application to boxes.

A is the box, and B the lid. These are shown with the usual end cleats, C and D, respectively.

E is the fastener-loop, shown as made of wire. The ends *e* are in line with each other and form the pintles on which the loop turns. *e'* *e'* are two portions parallel with each other and at right angles to the pintles *e*. Grooves *d* are cut in the lid-cleat D, and *c* in the body-cleat C, to receive the parts *e e'* of the loop, so that these parts do not project beyond the face of the cleats.

*e*³ is an eye, having connection with the parts *e'* by parts *e*². The eye and parts *e*² enter a recess, *c'*, in the bottom of cleat C, so that when the loop is in position shown in Fig. 3 the lid B is held down fast to box or body A. The pintles *e* are held in their grooves *d* by staples F, within which the pintles turn.

G is a pin that works in the cleat C, its head *g* fitting easily in a recess, *c*², that may be made deep enough to hold a spiral or other spring, H, that acts to push the pin G downward into the position shown in Figs. 2, 3, and 6. When the loop E is in the position shown in Fig. 3, the projecting part of the pin G rests in the eye *e*³, and prevents the loop from swinging outward and becoming disengaged from the cleat C. When disengaging the loop from the cleat C, the pin is first raised by the point of a finger, and then the loop may be swung outward at bottom. The spring H may be confined by a plate, I, fastened over the recess *c*², or by other means.

It will be seen that neither the pin G nor the spring H is absolutely essential, for as long as the loop is in the position shown in Fig. 3 it will hold the lid down upon the box, and as long as no force is applied to swing it outward the pin G would be inactive. The pin is, however, a safeguard against the loop swinging outward, and the spring prevents the accidental inward movement of the pin. When the pin G and spring H are present, the fastening would be effective if the case or box were turned bottom upward; and the presence of these parts G and H enables the parts to be transposed upon the case, the loop being hinged to the body-cleat C and engaging the lid-cleat D, the pin and spring being inserted in cleat D.

I do not consider the eye *e*³ as essential, for the bottom bar, *e*², may be bent so as to pass behind the pin G. The form shown has, however, this advantage: it is a guard for the projecting end of the pin, and prevents its accidental push upward and release of the loop.

The fastening may be inverted by attaching cleat D to the body and cleat C to the lid.

I claim as my invention—

1. The combination, with the cleats D and C, attached to the lid and body of the box, respectively, of the fastener made of a single piece of wire, having its ends formed as hinges located in recesses of one cleat, and its central

portion bent rectangularly inward to engage a knob on the other cleat.

2. The combination, with the body and lid of a box or case, of a loop or catch composed of
5 pintles e , shanks e' , and eye e^2 , occupying, when closed, recesses in the body and lid, and being hinged to one and engaging with the other member, and a vertical pin to occupy
the eye of the loop or catch, as set forth.

10 3. The combination, with a box or case and lid, of a loop or catch consisting of a staple

with its ends turned out to form pintles, and its middle bent inward into a bow or ring to engage a vertical pin working in a cleat of the box, over which the inwardly-bent bow or ring
15 engages, and a spring bearing upon the end of the pin, as set forth.

JACOB R. SPRAGUE.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.