

C. S. MERRILL.
Spring Attachment for Box-Covers.

No. 214,169.

Patented April 8, 1879.

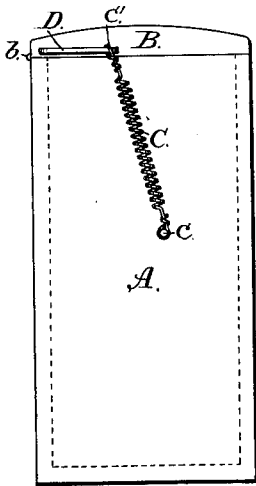


FIG. 1.

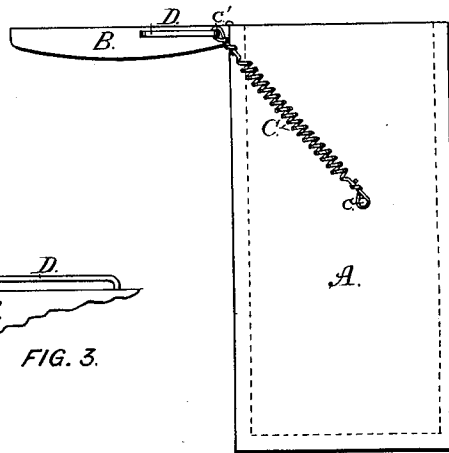


FIG. 2.

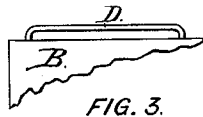


FIG. 3.

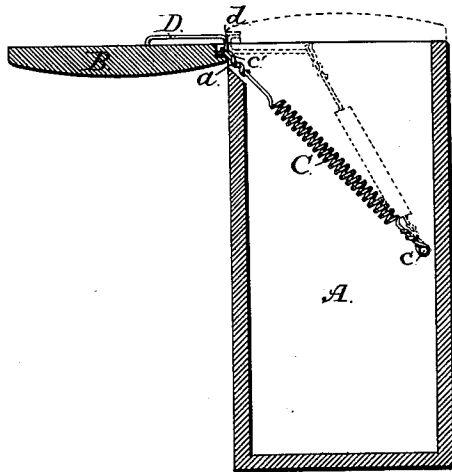


FIG. 4.

Witnesses,

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IMPROVEMENT IN SPRING ATTACHMENTS FOR BOX-COVERS.

Specification forming part of Letters Patent No. 214,169, dated April 8, 1879; application filed March 5, 1879.

To all whom it may concern:

Be it known that I, CYRUS S. MERRILL, of the city and county of Albany, and State of New York, have invented a new and useful Improvement in Spring Attachments for the Covers of Boxes, &c., of which the following is a full and exact description.

My invention relates to spring attachments for automatically retaining the hinged covers of boxes in either an open or closed position, as may be required; and it consists in combining, with a spring, a slide-bar, to which one end of the spring is attached, the whole being arranged to operate in the manner hereinafter described.

In the accompanying drawings, which form a part of this specification, and to which reference is herein made, Figure 1 is an end view of a box with its cover closed; Fig. 2, the same with its cover opened; Fig. 3, a detached and enlarged detail of the slide-bar; and Fig. 4, a horizontal section, showing a modification of my invention as applied to the interior of a box.

As shown in the drawings, A represents the box, which may be of any desired form and size. B is the cover or lid, hinged to the box at *b*. C is a spring, secured at one end, by a pin, *c*, or other suitable fastening, to the box A, its other end being adapted, by means of the eye *c'*, to slide freely on the slide-bar D, attached to the cover B.

The point at which the pin *c* is fixed should

be arranged at such an angle with the end of the slide-bar that when the cover is closed the elastic power of the spring will draw the eye *c'* to the extremity of the slide-bar farthest from the hinged joint, in which position the spring will exert its greatest effect in keeping the cover closed. On opening the cover the eye *c'* slides toward the opposite end of the slide-bar, as shown in Fig. 2, where the eye falls below the pivotal center of the hinge, and the power of the spring is exerted to hold the cover open.

In the modification shown in Fig. 4, the spring C and slide-bar D are placed in the interior of the box A, for the purpose of adapting my improvement to boxes required to be placed in tiers. The slide-bar D has an elbow, *d*, extending below the pivotal center of the hinge when the cover is opened, when the eye *c'* will slide to that part, thereby bringing the spring into position to hold the cover open. A notch, *a*, is formed in the side of the box, so as to allow a clear unobstructed connection between the pin *c* and elbow *d*.

I claim as my invention—

The combination, with the box A and cover B, of the spring C and slide-bar D, arranged to operate in the manner and for the purpose herein specified.

CYRUS S. MERRILL.

Witnesses:

WILLIAM H. LOW,
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