(No Model.)

J. ROBINSON.

BOX FASTENER.

No. 421,762. Patented Feb. 18, 1890.

Fig. 1.

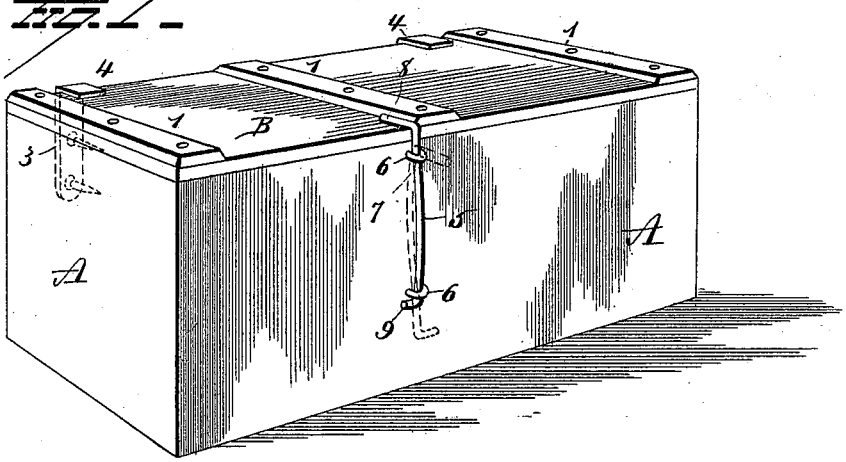


Fig. 3.

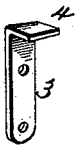


Fig. 2.

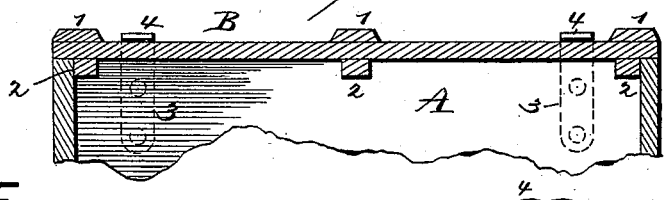
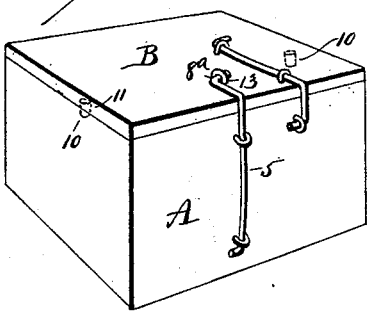


Fig. 4.



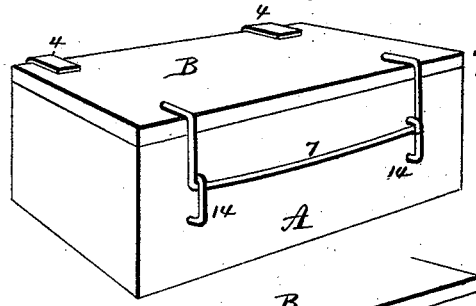
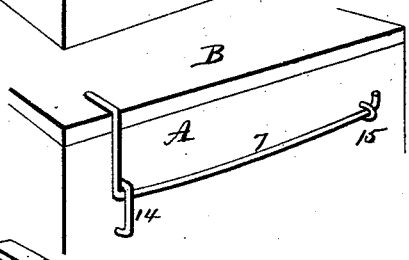


Fig. 6.

Fig. 7.



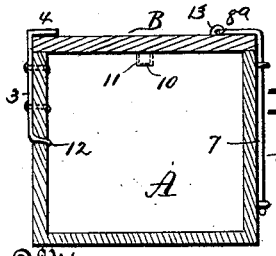


Fig. 5.

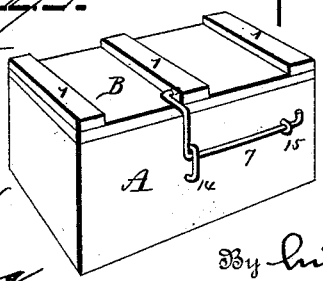


Fig. 8.

Witnesses
R. W. Partridge
G. F. Downing.

Inventor
John Robinson
By his Attorney
H. A. Seymour

UNITED STATES PATENT OFFICE.

JOHN ROBINSON, OF SHARPTOWN, MARYLAND.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 421,762, dated February 18, 1890.

Application filed April 19, 1889. Serial No. 307,804. (No model.)

To all whom it may concern:

Be it known that I, JOHN ROBINSON, of Sharptown, in the county of Wicomico and State of Maryland, have invented certain new and useful Improvements in Box-Fastenings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in crate and box fastenings.

The object is to provide a reliable fastening for covers susceptible of quick and easy operation, simple and inexpensive in construction; and it consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of the crate embodying my invention. Fig. 2 is a view in section showing the retaining-hooks. Fig. 3 is a detached view of one of the retaining-hooks. Fig. 4 shows a modified form of box and fastening. Fig. 5 is a modified form of rigid fastening. Figs. 6, 7, and 8 are modifications.

A represents the crate or box of the usual shape and construction, and B is the lid or cover.

To furnish suitable rigidity, cleats 1 1 1 are secured crosswise on the upper face of the lid or cover, and similar but smaller cleats 2 2 2 are secured to the lower face in such a manner that they fit inside the box or crate, holding the cover in place. To the back of the crate a pair of rigid holding-plates 3 3 are secured, with their upper hooked ends 4 projecting forward to receive the cover.

A spring latch or fastening 5 is held loosely in eyelets 6 6 on the front of the crate or the side opposite the one having the rigid fastenings. This latch consists of a piece of wire bent from a straight line at point 7 about midway between its ends, in order to hold the latch in place by the impact of this portion 7 against the side of the box, and yet by its elasticity to admit of the latch being turned with the application of slight pressure. The wire is bent at its upper end 8 at right angles to the wire, and particularly at right angles to the portion 7, so that when this end 8 extends over the edge of the cover the bent portion 7 extends alongside the box, preventing the wire from being accidentally turned backward, and yet, as previously mentioned, permitting it to be turned with slight pressure, while at the lower end 9 the wire is bent in an opposite direction from the portion 7, furnishing a stop to prevent the withdrawal of the latch from the eyelets and at the same time to limit its turn in one direction.

To remove or place the cover, the upper end 8 of the latch is turned outward. The latch then drops downward out of the way. The cover or lid is then raised slightly at the forward side, and the opposite edge is slid laterally under the hooks 4, or away from them, as the case may be, either to place the cover on or remove it, and the spring-latch is then raised as high as possible in the eyelets and turned until the end 8 hooks over the edge of the cover, where it is held by the spring action. Here it is held by the formation of the wire composing the latch.

In the modification shown in Figs. 4 and 5 the cover, instead of having the cleats, as described in former constructions, is furnished with holes 10 10 at the ends, adapted to receive the dowel-pins 11 11 at corresponding positions in the box or crate. The positions of these pins and holes might of course be reversed, their object merely being to confine the cover to its proper position. The rigid fasteners, as shown in Fig. 5, employed on this crate are substantially like those shown in Fig. 3, except that at one end they terminate in a laterally-projecting point 12, adapted to be inserted in the side of the box to help hold them in position. The latch is also substantially the same as that shown in former constructions, excepting that the end 8 is provided with a projection 8^a, adapted to enter a loop 13 in the cover. This spring-latch might as well be located on the cover as on the side of the box. It would accomplish the same purpose and only requires that the parts be slightly reversed.

In the modification shown in Fig. 6 the spring-latch is double, the bent spring portion 7 being between the two hooks, and the whole being held in a pair of elongated loops 14 14.

In the modification shown in Fig. 7 the con-

struction is similar to that just described; but instead of two hooks only one is employed, and one end is in an elongated loop and the other is in a small loop 15. The end adjacent to this loop is bent laterally and prevents the removal of the spring-latch from the crate.

In the modification shown in Fig. 8 the hook is precisely like the one last described, with two exceptions—namely, that the end of the hook is bent laterally to enter an eye or hole in the cleat and that the spring portion 7 is a little longer than the distance between the loops, so that it is capable of an endwise movement, whereby an insertion of the laterally-bent point is effected. This results in a very secure fastening, not liable to be removed by accident, and is easily manipulated.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the particular construction herein set forth; but,

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

1. As a new article of manufacture, a crate or box consisting of a body, a cover, and spring-latch, the latter consisting of a wire bent at right angles at the ends, and one end having a projection adapted to enter a loop, the middle portion of the wire being bent laterally to form a spring, substantially as set forth.

2. As a new article of manufacture, a box or crate consisting of a body, a cover, hooks on one side of the body, a spring-latch, the latter consisting of a wire bent at right angles at its ends and loosely mounted in bearings, the said latch and bearings being constructed to permit the locking end of the latch to partly rotate and also have a longitudinal movement, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN ROBINSON.

Witnesses:
JAMES ROBINSON,
ALBERT W. ROBINSON.