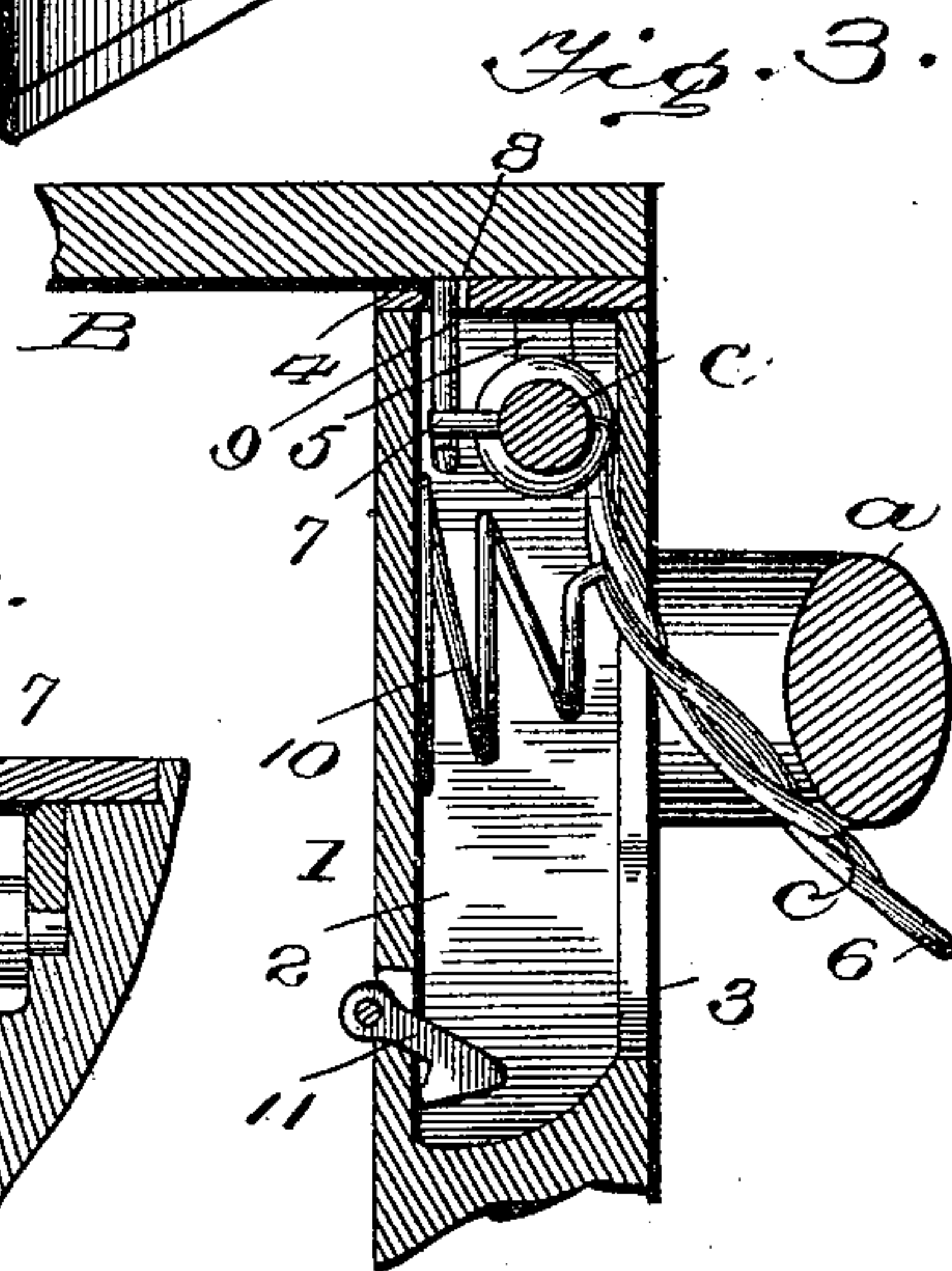
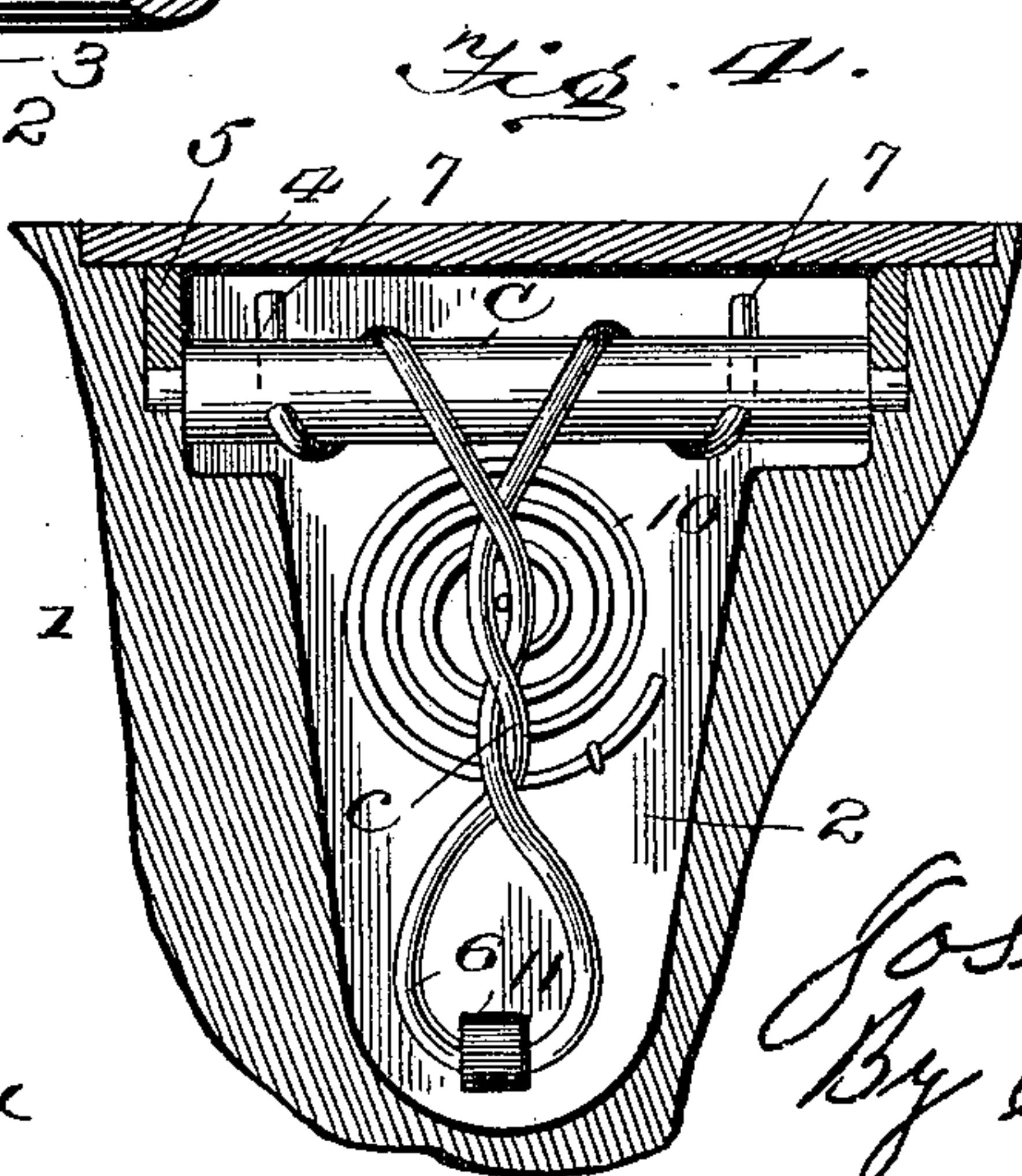
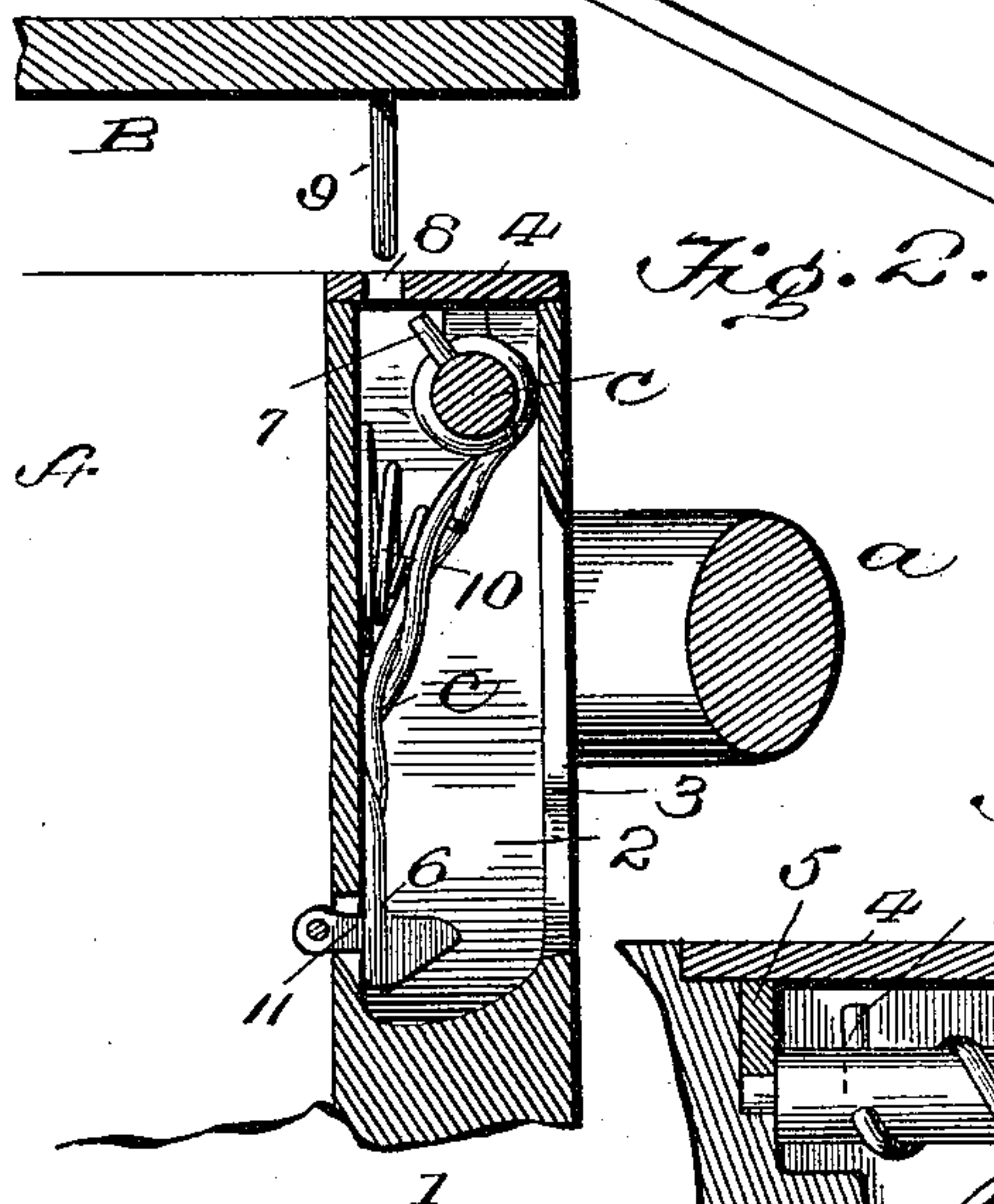
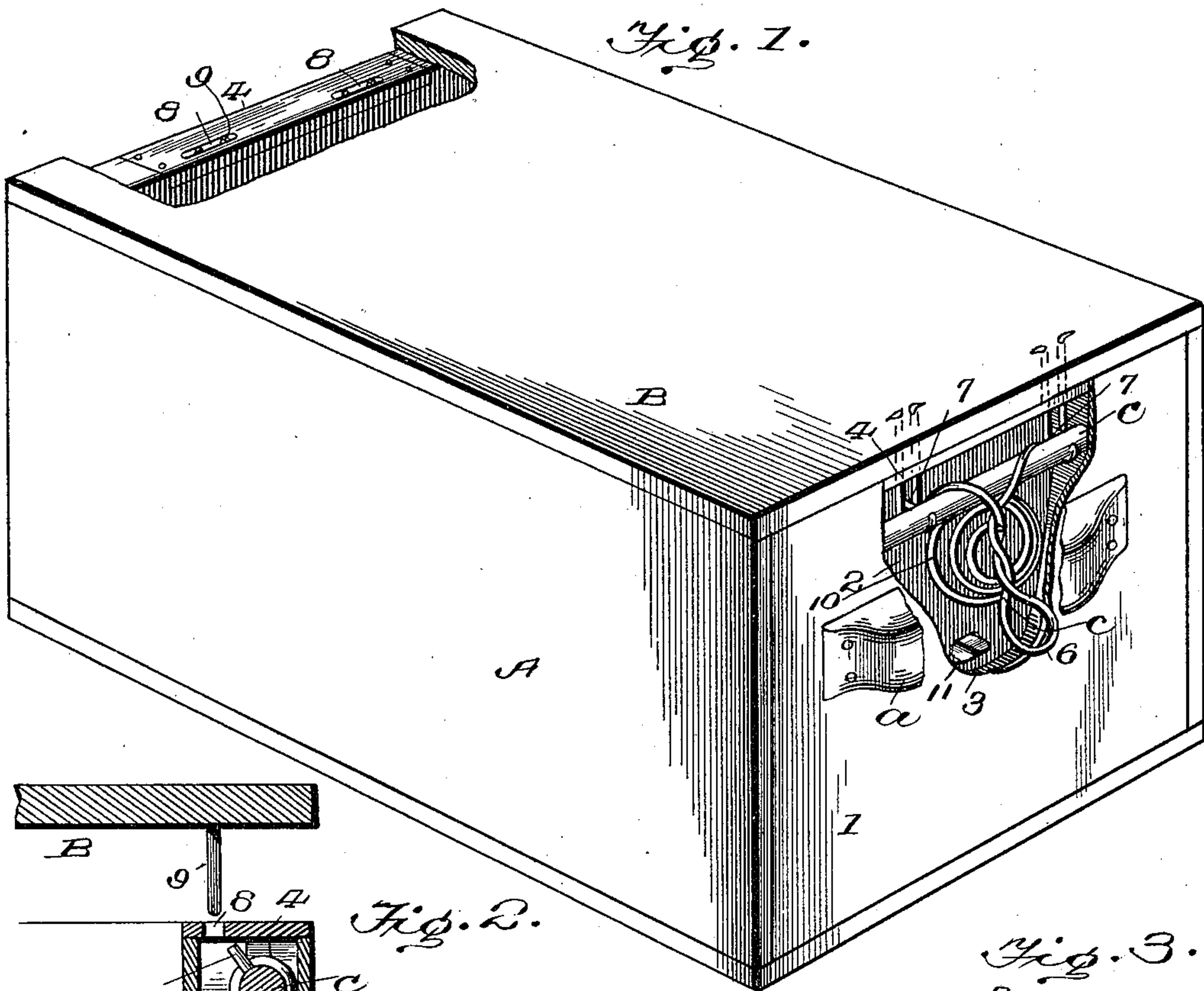


(No Model.)

J. EHLER.
BOX FASTENER.

No. 582,606.

Patented May 11, 1897.



Witnesses

John J. Irvine
D. W. Gould

Joseph Ehler Inventor
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UNITED STATES PATENT OFFICE.

JOSEPH EHLER, OF PORT HUDSON, MISSOURI.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 582,606, dated May 11, 1897.

Application filed January 2, 1897. Serial No. 617,778. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH EHLER, a citizen of the United States, residing at Port Hudson, in the county of Franklin and State of Missouri, have invented a new and useful Box-Fastener, of which the following is a specification.

My invention relates to an improvement in box-fasteners; and it has for its object the production of means for automatically securing the top or lid in place on the box, whereby accidental displacement of the lid in shipping or handling the box is prevented.

The invention will first be described in connection with the accompanying drawings and then pointed out in the claims.

Figure 1 of the drawings is a perspective view of a box embodying my invention, parts being broken out for better illustration. Fig. 2 is a broken vertical longitudinal sectional view of the same, showing the parts in the unlocked position. Fig. 3 is a similar view, the parts being shown in the locked position. Fig. 4 is a broken transverse sectional view of one end of the box, the parts being shown in the unlocked position and the lid omitted.

Referring to the drawings, A represents the box, which may be of any desired shape or size and provided with handles *a*, and B the box-lid.

The end walls 1 of the box are hollowed out for a portion of their width and depth, as at 2, this hollowed out portion communicating with an opening 3 in the outer side of each end wall 1 just in rear of and extending below the handle *a*, as shown in Fig. 3. A cap plate or strip 4 closes the upper end of each hollow portion, as shown.

Depending from each strip 4 are vertical hangers 5, in which is mounted a roller C, having a handle *c*, preferably formed of wire, the free end of which is formed in a loop 6, the ends of the wire being passed around the roller C and then through it, forming studs 7, projecting from the surface of the roller near each end thereof, these studs being so positioned that when the handle *c* is against the inner wall of the hollow portion 2 the studs will be in nearly a vertical position, as shown in Fig. 2. Directly above each stud 7 the strip 4 is formed with a narrow transverse opening 8, through which a staple 9, projecting from the lower side of lid B, is adapted to pass.

10 represents a coil-spring bearing at one end against the inner wall of the hollowed-out portion 2 and at the other end against the handle *c*, as shown in Fig. 3.

11 represents a gravity-catch loosely pivoted in each hollow portion 2 near the bottom thereof, as shown in the drawings.

In operation the loop end 6 of handle *c* is placed beneath the catch 11 against the stress of spring 10, leaving the studs 7 in nearly a vertical position, as before described. The box-lid B is now placed in position, the staples 9 passing down through the openings 8. A slight jar of the box releases the handles *c* from the catches 11, permitting the spring 10 to force the handle *c* outward, turning the handle-roller C and causing the studs 7 to enter the staples 9, thus locking the lid in place, the handle *c* passing out through the opening 3 and contacting with the box-handle *a*. When desired to release the lid, the handles *c* are pressed inward, removing the studs 7 from the staples 9 and permitting the lid to be removed.

Although I have shown my invention as applied to a box having a lid which is entirely removable, it is evident that it is equally applicable to a box having a hinged lid.

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

1. In a box-fastener, a box, a lid therefor, said lid having a series of staples projecting therefrom, a roller carried by the box, studs projecting from the roller and adapted to be thrown into the staples to secure the lid in position, and means for locking the roller so as to maintain the studs in inoperative position.

2. In a box-fastener, a box, a lid therefor, said lid having one or more staples projecting therefrom, a spring-operated roller mounted in each end of the box, studs projecting from each roller, a handle projecting from each roller, and means for locking the roller so as to maintain the studs in inoperative position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOSEPH EHLER.

Witnesses:

ALBERT WULFERT,
RICHARD WULFERT.