

No. 838,745.

PATENTED DEC. 18, 1906.

G. PATTERSON & J. B. IRELAND.

BOX LID CLAMP.

APPLICATION FILED SEPT. 28, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

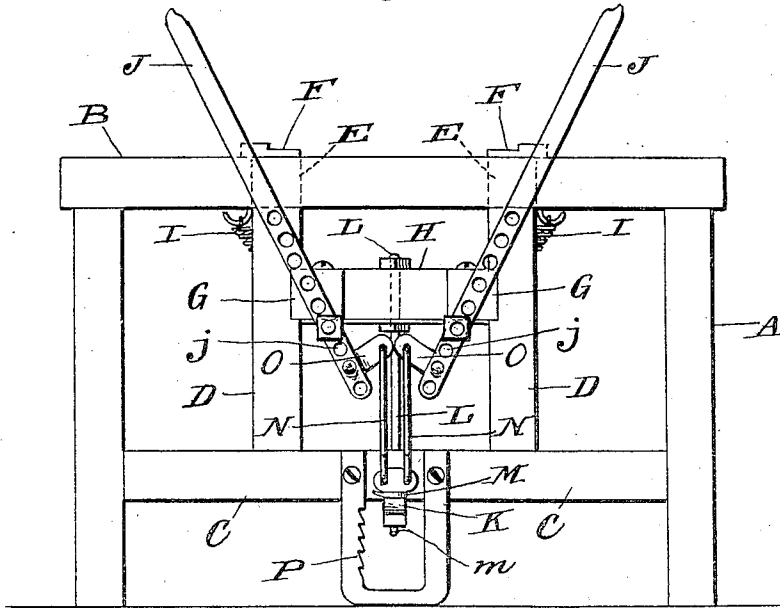
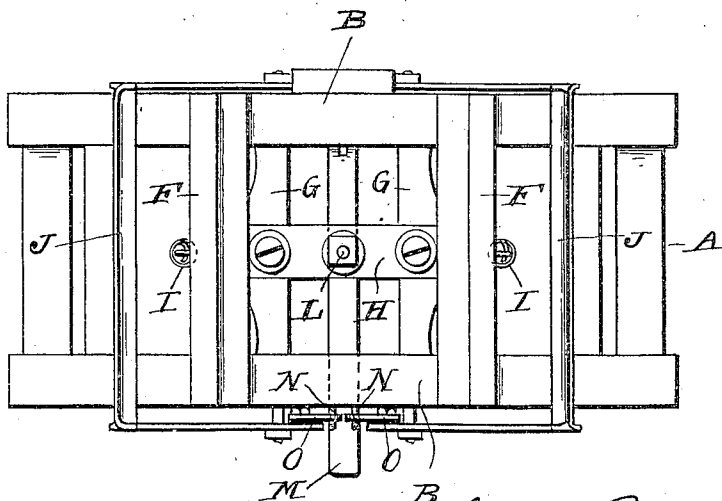


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 5.

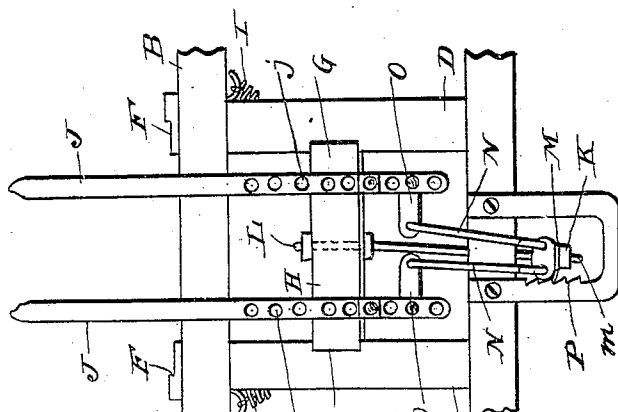


Fig. 4.

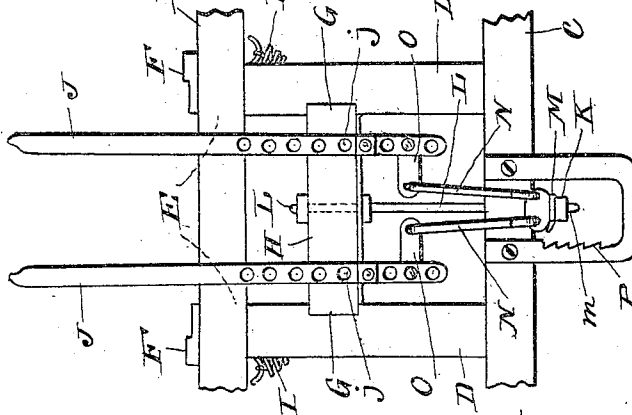
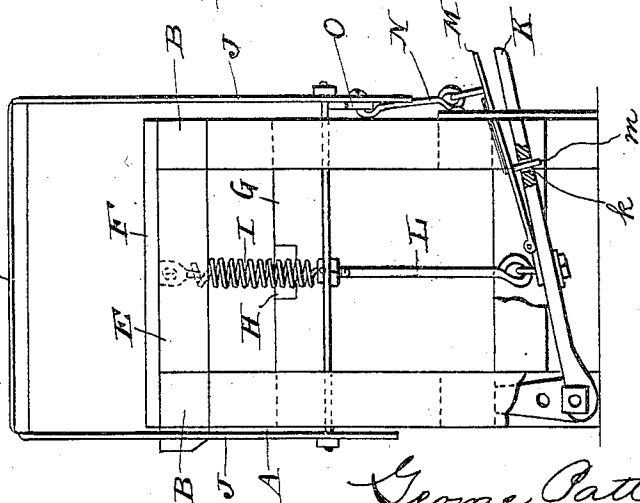


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE PATTERSON AND JAMES B. IRELAND, OF BRODERICK, CALIFORNIA.

BOX-LID CLAMP.

No. 838,745.

Specification of Letters Patent.

Patented Dec. 18, 1906.

Application filed September 28, 1905. Serial No. 280,512.

To all whom it may concern:

Be it known that we, GEORGE PATTERSON and JAMES B. IRELAND, citizens of the United States, residing at Broderick, in the county of Yolo and State of California, have invented certain new and useful Improvements in Box-Lid Clamps, of which the following is a specification.

Our invention relates to clamps for holding the lids of boxes and crates in position while being nailed or otherwise secured in position, and has for its object the provision of a device of simple construction, comparatively inexpensive in cost of manufacture, effective in operation, and easy to manipulate.

The construction and operation of our invention will be described in detail hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a front view of our invention; Fig. 2, a side view; Fig. 3, a rear view; Fig. 4, a fragmental view showing the first movement after depressing the lever, and Fig. 5 a similar view showing the lever fully depressed.

In the drawings similar reference characters indicate corresponding parts throughout the several views.

A represents a frame having horizontal beams B and C, to which are secured uprights D, while E represents cross-beams connecting beams B, supporting grooved cross-pieces F, in which the box or crate is adapted to be placed.

G represents two beams secured to a cross-beam H and forming an H-shaped frame slidably mounted between uprights D and supported by cross-beams E through the medium of retractile coil-springs I.

J represents the clamping members, consisting of inverted-U-shaped frames pivotally mounted on the ends of beam G, the ends of the arms of said U-shaped frames being provided with a series of holes, as shown at j, so that the pivotal points of the frames J may be changed as desired to accommodate boxes and crates of different heights.

K represents a lever fulcrumed on the horizontal beam C at the rear of the machine and connected with cross-beam H by means of rod L. M represents another lever fulcrumed on lever K between its free end and the point where rod L is secured thereto.

m represents a pin projecting from the lower side of lever M, and k a slot in lever K to receive said pin.

N represents rods secured to lever M and to arms O, secured to the free end of U-shaped clamping members J, said arms being secured in the holes j and may be adjusted therein as desired.

P represents a ratchet to engage the edge of lever M and hold it in its depressed position.

In operation the box or crate is placed on grooved cross-pieces F and the lid placed in position thereon. The operator then places his foot on the free end of lever M, depressing it. The first result obtained is the closing together of frames J caused by the pull exerted by rods N. A continued pressure on the end of lever M causes its free end to engage the free end of lever K, and the two levers are moved downward together to the end that the frames J compress the contents of the box or crate, so that the lid may be secured thereto. The edge of lever K may then be secured in ratchet P while the lid is being nailed or screwed into place.

Having thus described our invention, what we claim is—

1. In a box-lid clamp, a vertically-movable frame, clamping members pivotally secured thereto, means to actuate said frame, and means secured to the frame-actuating device to swing the clamping members, substantially as shown and described.

2. In a box-lid clamp, a vertically-movable frame, springs to normally hold said frame in a raised position, clamping members pivotally secured thereto, a lever connected with said frame to depress it, and a lever fulcrumed on the first-named lever and connected with the clamping members, substantially as shown and described.

3. In a box-lid clamp, a vertically-movable frame, clamping members pivotally secured thereto, a lever, a rod connecting said lever and vertically-movable frame, a lever fulcrumed on the first-mentioned lever between its free end and the rod aforesaid, and operative connections between the last-named lever and the clamping members to swing them on their pivots, substantially as shown and described.

4. In a box-lid clamp, a vertically-movable frame, springs to normally hold said frame in a raised position, clamping members pivotally secured to said vertically-movable frame, a lever, a rod connecting said lever and the vertically-movable frame, and a lever fulcrumed on the first-mentioned lever between its free end and the rod aforesaid, and rods secured to said clamping members and the last-mentioned lever, substantially as shown and described.

5. In a box-lid clamp, a vertically-movable frame, U-shaped clamping-frames pivotally secured to said frame, means to actuate said movable frame, and means secured to the frame-actuating device to operate the said clamping-frames, substantially as shown and described.

6. In a box-lid clamp, a vertically-movable frame, U-shaped clamping-frames pivotally secured to said movable frame, a lever to depress said frame, and a lever fulcrumed on the first-mentioned lever to swing said clamping-frames into a clamping position, substantially as shown and described.

7. In a box-lid clamp, a vertically-mov-

able frame, springs to normally hold said frame in a raised position, U-shaped clamping-frames pivotally secured to said movable frame, a lever connected with the vertically-movable frame to depress it, and a lever fulcrumed on the first-named lever and operatively connected with said clamping-frames, substantially as shown and described.

8. In a box-lid clamp, a vertically-movable frame, springs to normally hold said frame in a raised position, inverted-U-shaped clamping-frames pivotally secured to said vertically-movable frame, a lever connected with said movable frame, a lever fulcrumed on the free end of the first-named lever and connected with one end of the U-shaped clamping-frames, and a ratchet to receive the edge of the last-mentioned lever, substantially as shown and described.

In testimony whereof we hereto affix out signatures in the presence of two witnesses.

GEORGE PATTERSON.

JAMES B. IRELAND.

Witnesses:

IRVING NEEDHAM,
K. C. ERVING.