

J. B. IRELAND.
BOX CLAMPING MACHINE.
APPLICATION FILED OCT. 4, 1907.

902,491.

Patented Oct. 27, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

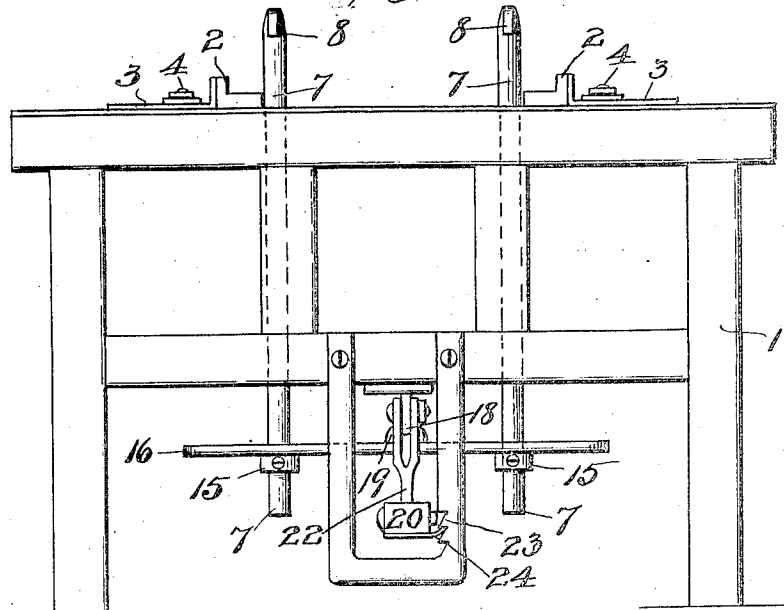
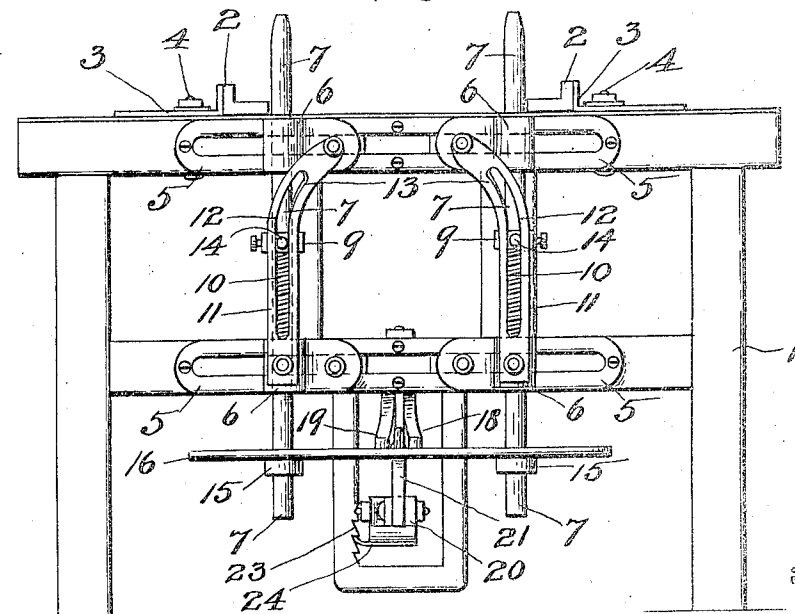


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

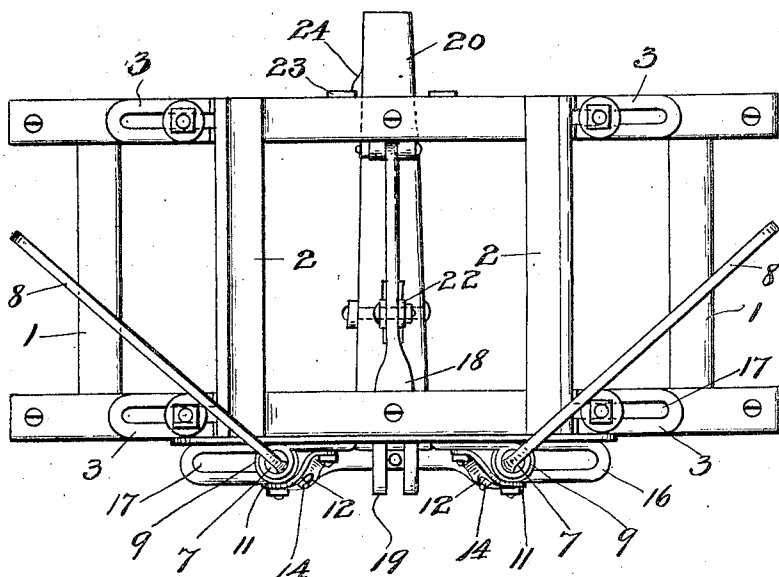
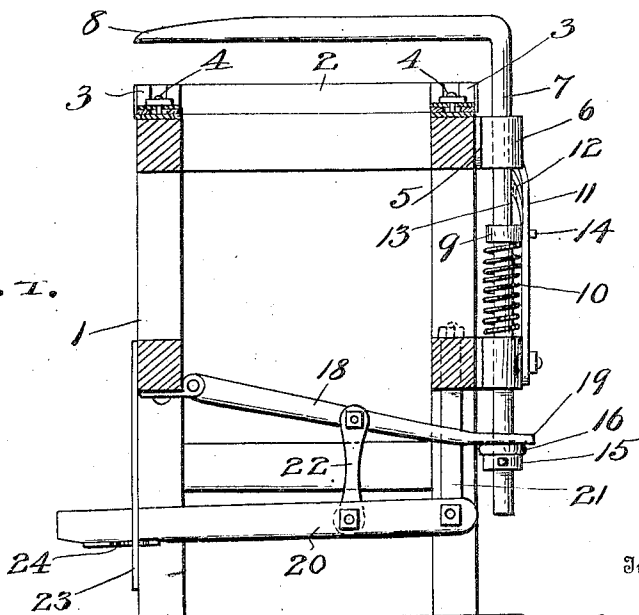


Fig. 1.



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UNITED STATES PATENT OFFICE.

JAMES B. IRELAND, OF BRODERICK, CALIFORNIA, ASSIGNOR OF ONE-HALF TO ARTHUR C. HUSTON, OF WOODLAND, CALIFORNIA.

BOX-CLAMPING MACHINE.

No. 902,491.

Specification of Letters Patent.

Patented Oct. 27, 1908.

Application filed October 4, 1907. Serial No. 395,966.

To all whom it may concern:

Be it known that I, JAMES B. IRELAND, a citizen 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-Clamping Machines, of which the following is a specification.

My invention relates to devices for holding the lids of packing boxes and cases in position while being nailed or otherwise secured and has for its object the provision of a device operated by footpower in which the clamping members consist of two vertical shafts rotatably and slidably mounted in suitable bearings and having horizontal arms extending therefrom, said shafts being operated by the footpower treadle to depress them and being rotated by spirally slotted plates and pins secured to the shafts riding in said slots.

The construction and operation of my machine will be described in detail hereinafter and illustrated in the accompanying drawings in which

Figure 1 is a front view of my improved machine, Fig. 2, a rear view, Fig. 3, a top plan view, and Fig. 4, a vertical sectional view on the line $x-x$ of Fig. 1.

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

1 indicates the frame of my improved machine.

2 indicates the box rests having slotted plates 3 secured thereto to receive bolts 4 to secure them in place on the frame, this construction admitting of adjusting the rests 2 to accommodate different sizes of boxes.

5 indicates slotted plates secured to the rear of the machine, and 6 journal bearings adjustably secured on said plates, being slidably mounted in the slots.

7 indicates shafts slidably and revolvably mounted in bearings 6 having horizontal arms 8 extending from their upper ends.

9 indicates a collar adjustably secured to each shaft 7 and 10 an expansible coil spring mounted between each collar 9 and the lower bearing 6, said springs normally holding the shafts 7 in a raised position.

11 indicates plates secured to the bearings 6 and provided with a slot 12, said plates being given a quarter turn at their upper ends as shown at 13.

14 indicates a pin on each collar 9 that rides in slot 12 so that when the shafts 7 are actuated downwardly the arms 8 are turned from the position shown in Fig. 3 to a substantially parallel position in position to engage the box lid.

15 indicates other collars secured to shafts 7 and supporting a bar 16 provided with slots 17 at each end to receive said shafts 7.

18 indicates an arm pivotally secured to the front of frame 1 and having a bifurcated end 19 resting on bar 16.

20 indicates a lever fulcrumed on a bar 21 secured to the rear of frame 1 between the two prongs of the bifurcated end 19.

22 indicates a link connecting lever 20 with arm 18.

23 indicates a ratchet secured to frame 1 to engage plate 24 secured to lever 20.

In operation the box is laid on the rests 2 and the lid placed in position. The lever 20 is then depressed which through link 22 swings the arm 18 downward and which carries with it the shafts 7. As stated above, when the shafts 7 are actuated downwardly the pins 14 riding in the slot 12 turn the arms to a substantially parallel position, over the box, and a continued depression of the shafts pull the arms down so as to clamp the lid on the box. When pressure on the lever 20 is released the springs 10 return them to their normal position.

Having thus described my invention what I claim is—

In a box clamping machine, a frame, box rests having slotted projections secured thereto and extending therefrom and secured to the frame through the slots in said projections, slotted plates secured on said frame, journal bearings slidably mounted on said slotted plates, shafts slidably and revolvably mounted in said bearings, horizontal arms extending from said shafts, slotted plates secured to said bearings, each of said plates being given a quarter turn around the shaft, a pin secured to each shaft and riding in the

slot in the adjacent plate, a spring to normally raise each shaft, a foot lever fulcrumed on said frame, an arm pivotally secured to the frame and operatively secured to the foot lever, and a rod having slots to receive said shafts and engaging said pivoted arm, substantially as shown and described.

In testimony whereof I hereto affix my signature in the presence of two witnesses.

JAMES B. IRELAND.

Witnesses:

A. B. REYNOLDS,
W. M. RUSSELL.