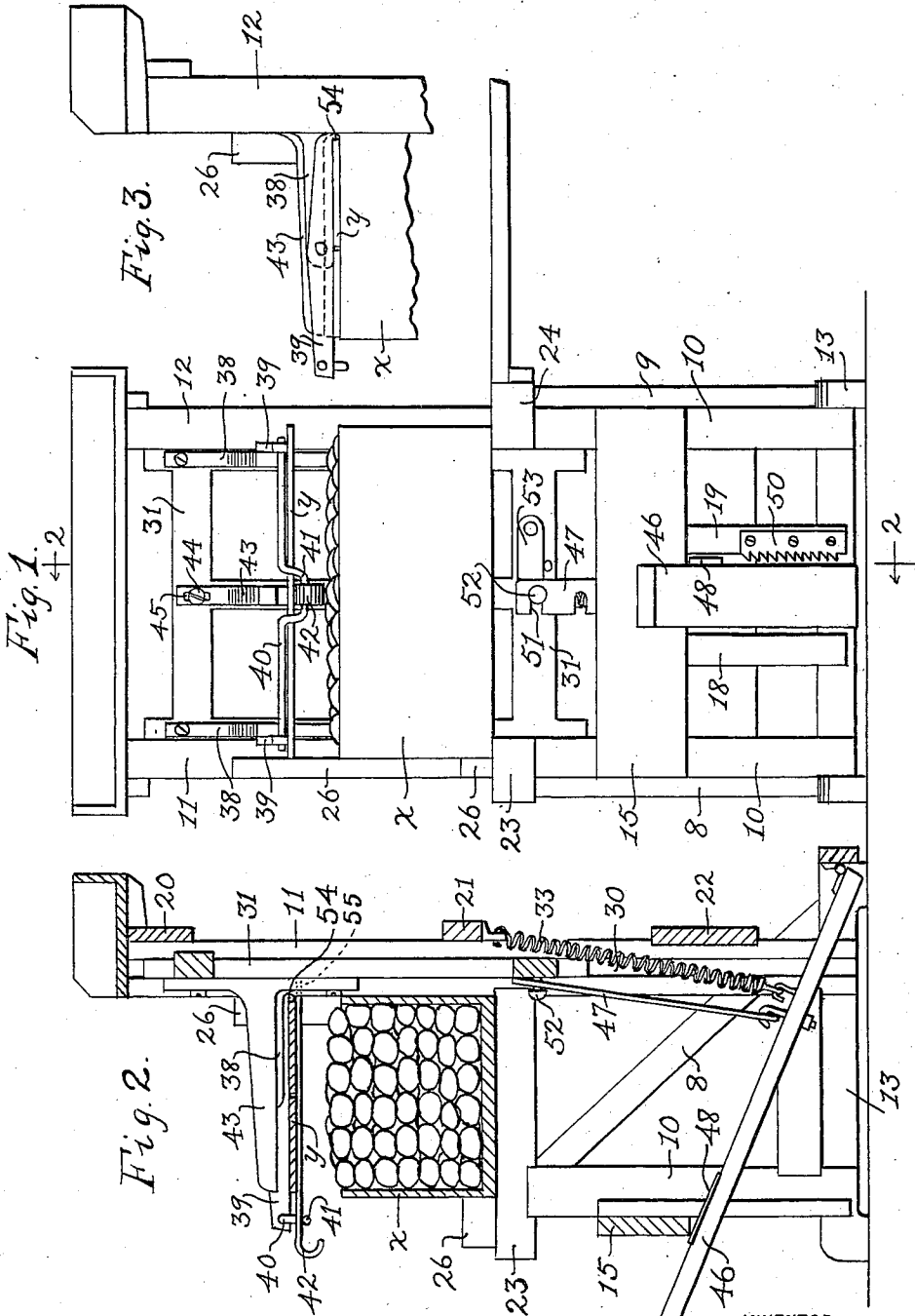


T. H. WIBLE.
BOX COVERING MACHINE.
APPLICATION FILED APR. 4, 1910.

1,017,276.

Patented Feb. 13, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS H. WIBLE, OF GRAND JUNCTION, COLORADO.

BOX-COVERING MACHINE.

1,017,276.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed April 4, 1910. Serial No. 553,412.

To all whom it may concern:

Be it known that I, THOMAS H. WIBLE, a citizen of the United States, and a resident of Grand Junction, in the county of Mesa and State of Colorado, have invented certain new and useful Improvements in Box-Covering Machines, of which the following is a specification.

This invention relates particularly to improvements in box covering machines of that type heretofore invented by me and shown and described in United States Patent No. 916,078, issued to me March 23, 1909.

The object of my improvements herein claimed are first, to provide means whereby the cover holding carriage may be readily and accurately adjusted for covering boxes of different sizes; second to provide improved cover holding brackets whereby the cover may be forced down in complete contact with the ends of the box and without danger of breaking the cover; and third to improve and strengthen the general construction of the machine.

In the accompanying sheet of drawings, showing my improved box covering machine, Figure 1 is a front elevation of the machine. Fig. 2 is a transverse sectional view of the same on the line 2—2 of Fig. 1. Fig. 3 is a side elevation of the upper part of the machine showing the cover supporting carriage holding the ends of the cover in contact with the top of the box in position for nailing.

Similar reference characters refer to similar parts in each of the figures of the drawing.

The general form of the framework of the machine is similar to the machine as shown in the patent above referred to the main frame being approximately chair shaped comprising a pair of short vertical front standards 10 and longer vertical standards 11 and 12, these being suitably connected at the base by the frame 13, which supports the machine on the ground or floor. The front standards are connected by a cross plate 15 to which are secured vertical bars 18 and 19. The rear standards 11 and 12 are connected by three cross plates 20, 21 and 22 and the upper ends of the front standards 10 are connected to the rear standards by the horizontal bars 23 and 24, which form a supporting table for the box X. Two diagonal braces 8 and 9 are provided for the purpose of strengthening the frame.

The boxes X are positioned by means of an L shaped end stop 26 which is secured to and projects above the bar 23 and out from the left hand standard 11. The boxes being placed against the standards and the left hand end pushed against the end stop 26, will always be accurately and uniformly positioned for the reception of the cover Y.

The inner faces of the two standards 11 and 12 are provided with vertical grooves 30 for the edge portions of the vertically slidable frame 31 which may be formed of any suitable material. The lower end of this frame is connected to the pedal lever 46 by means of a bar 47. A coiled spring 33 has its lower end connected to the pedal lever 46 and its upper end connected to the cross bar 21. The tension of this spring thus holds the pedal lever 46 and slidable frame 31 connected thereto in elevated position as shown in Figs. 1 and 2. Two brackets 38 are secured to side members of the frame 31. These brackets project out substantially one half the width of the box and have the arms 39 centrally pivoted thereto. The outer ends of these arms are connected by a cross rod 40 in the central portion of which is a notch or recess 41 which is provided for the reception of the straining bar 42, the rear end of which is removably seated in a hole or socket 55 in the vertical arm of the central bracket 43. The upper edge of this straining bar is arranged in a horizontal plane slightly above the lower edges of the pivoted arms 39. The rear ends of the pivoted arms 39 are provided with downward projecting lugs 44. The cover Y is held in position above the box X with its ends underneath the pivoted arms 39 and its central part supported by the straining bar 42 as shown in Figs. 1 and 2, and is accurately positioned directly above the box X by the downward projecting lugs 54 and the upper part of the end stop 26. A pawl blade 48 is secured to one side of the pedal lever 46 and is adapted to engage with the teeth of a locking ratchet 50 which is secured to the vertical guide bar 19. Upon depressing the pedal lever 46 the cover carrying frame may be brought down against the resistance offered by the spring 33, and any desired degree of force may be applied to force the cover down thereby pressing the fruit contained therein to the required degree and bringing the projecting ends of the cover in contact with the top of

the box ends, convenient for nailing. The parts may be locked in this position by the engagement of the pawl plate 48 with the ratchet 50 while the operator nails the ends of the cover, which project beyond the pivoted arms 39, to the top of the box.

In order to quickly and accurately adapt the machine to covering the several standard sizes of boxes usually used for packing fruit, the connecting bar 47 is provided with suitable notches 51, which are adapted to engage the pin 52 in the lower part of the vertically slidable frame 31. These notches are so located that the effective length of the connecting bar may be readily varied in proportion to the height of the box so that the cover Y may be supported at substantially the same height above the top of each of the several standard sizes of boxes it may be desired to use. The connecting rod is normally retained in position with the desired notch 51 engaging the pin 52 by means of a button 53. Upon raising this button the connecting bar may be moved toward the right until the notch is clear of the pin and the frame 31 may then be lowered or raised until the pin is in line with any other desired notch wherein it may be locked as heretofore.

The pivoted arm brackets herein shown for forcing the cover down in contact with the top of the box, which are used in lieu of the rigid brackets shown in the patent hereinbefore referred to, serve to bring the cover down into close contact with the top of the ends of the box when, for any reason, the top of said ends are not in the same plane, thereby making the operation of nailing on the cover more easily accomplished.

It has been found in practice with my former machine that when a box of fruit is well filled, the forcing of the ends of the cover down into contact with the ends of the box is liable to break the cover boards at or near the center. In order to obviate this danger, I provide a rigid bracket 43 which is secured to the central member of the vertically movable slide 31 by means of screws or bolts 44, which pass through the slotted openings 45, which allow of a vertical adjustment of the bracket. This bracket should be so adjusted that it will engage the central bulge of the cover before there is danger of it being broken, and such pressure also serves to pack the fruit more compactly in the central part of the box.

In operation the box, when properly packed with fruit, is placed in position on the horizontal bars 23 and 24 being positioned by placing one side against the ver-

tical standards 11 and 12 and one end against the end stop 26. The cover is placed in position with one side against the lugs— and one end against the upper end of the end stop 26, the straining bar 42 being inserted to retain it in such position. The carriage is then pulled down by means of the pedal lever which is locked in the proper tooth of the ratchet when the desired pressure has been attained after which the ends of the cover may be fastened to the top of the ends of the box by nails or other securing devices.

While the machine is especially designed for covering boxes of fruit or vegetables which require to be securely pressed after packing, it may also be used for covering other boxes or crates.

The variable length connecting bar 47, which is used in this machine in lieu of the chain shown in my former machine is an essential element of the present machine which is especially adapted for covering fruit boxes of the several different standard sizes in general use. It is quite necessary that the machine may be readily and accurately adjusted so that the covers will be supported at the same distance above the upper edge of each of the several sizes of boxes which evidently could not be done with the chain heretofore used.

What I claim as my invention is:—

1. In a box covering machine, a box support, a vertically guided cover carriage, a pair of brackets secured to the side members of said carriage having pivoted bars provided with lugs at their rear ends to position the cover and with their outer ends connected by a cross rod, and a straining bar for supporting the cover against the lower edge of the pivoted bars.

2. In a box covering machine, a box support, a vertically guided cover carriage, a pair of brackets secured to the side members of said carriage having pivoted bars provided with lugs at their rear ends to position the cover and with their outer ends connected by a cross bar provided with an approximately central recess, a bracket adjustably secured to the central members of the cover carriage and provided with a socket, and a straining bar removably supported on the recess and socket for supporting the cover against the lower edge of the pivoted bars.

Signed at Grand Junction in the county of Mesa and State of Colorado this 22d day of February A. D. 1910.

THOMAS H. WIBLE.

Witnesses:

A. EUGENA KELLY,

C. P. BLAKE.