

J. N. SHOTWELL.
BOX MARKING MACHINE.
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1,138,985.

Patented May 11, 1915.

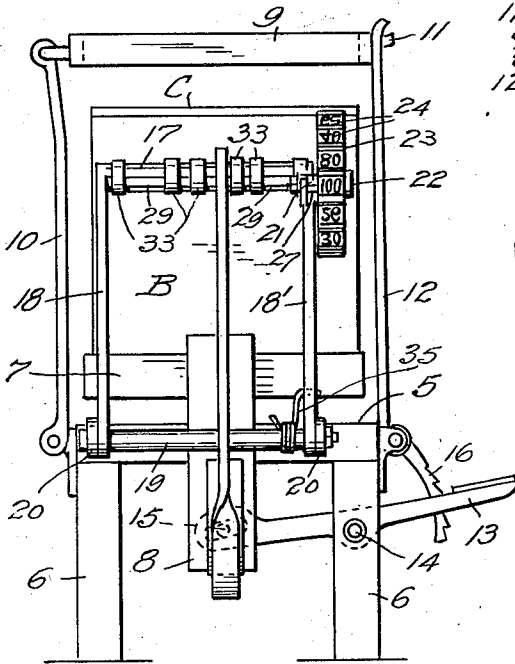


Fig. 1

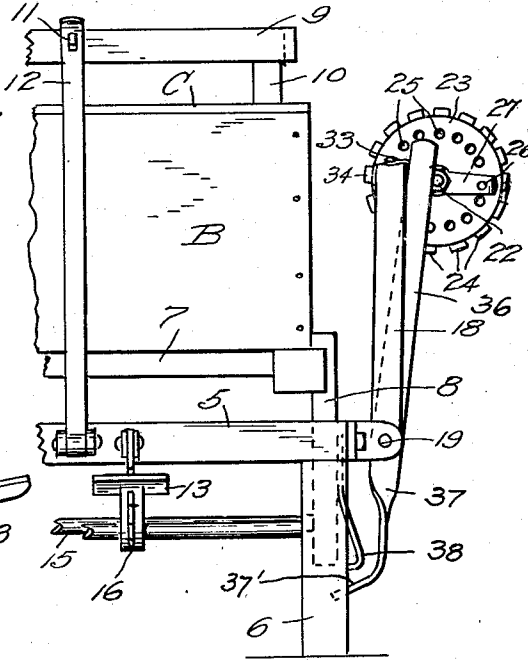


Fig. 2

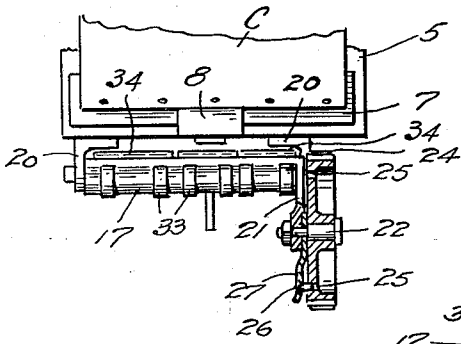
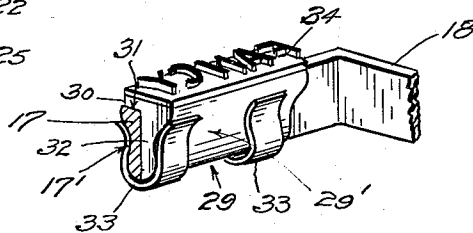


Fig. 3

Fig. 4



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BOX-MARKING MACHINE.

1,138,985.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN N. SHOTWELL, a citizen of the United States, residing at Cashmere, in the county of Chelan and State of Washington, have invented certain new and useful Improvements in Box-Marking Machines, of which the following is a specification.

This invention relates to machines for printing upon boxes and is designed, more especially, for marking names, weights and other data upon apple boxes.

The invention consists in improved features of construction, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a view in end elevation showing an embodiment of my invention applied to a machine of a certain type which is employed in securing the covers on boxes. Fig. 2 is a partial front elevation of Fig. 1. Fig. 3 is a plan view of the same, with parts shown in section. Fig. 4 is a fragmentary perspective view of the frame and illustrating the preferred manner of detachably securing type blocks thereto.

The reference numeral 5 designates a table having legs 6. 7 is the platform of an elevator upon which the body B of a box is supported and is provided with downwardly extending end members, such as 8.

At a distance above the table is a header 9 which is hingedly connected at the rear to supporting posts, as 10, so as to enable the header being swung back for conveniently placing a box on or removing it from the platform 7. At the front of said header is provided a stud 11 which engages in an aperture provided in a bar 12 hingedly connected to the table and serving to hold and support the front of the header 9.

The elevator platform is raised through the agency of a treadle or lever 13 fulcrumed to a bar member 14 of the table and is connected to a rod 15 which is secured to the end members 8 of the platform. 16 is a bar provided with ratchet teeth for engaging the lever in various adjusted positions.

The machine as described above is substantially like box-cover holding devices now in use and is operated as follows: A box B after being filled with apples, for example, and the cover C placed thereon, is raised with the elevator by the operator actuating the treadle 13 to force the box cover

against the under side of the frame 9. The cover is thus held firmly against the box-body and nailed thereto by the operator. When this has been accomplished the box is lowered by releasing the treadle to allow the elevator platform to descend upon the table.

The present invention, which I will now describe, provides devices for printing upon the ends of boxes. 17 is a transverse bar member connecting the upper ends of two side members 18 and 18¹ of a frame which are hingedly connected by a rod 19 to bracket elements 20 secured to the table 5.

Extending rectangularly from one end of the member 17 is an arm 21 which is bored to receive a pin 22 which serves as an axle bearing for a wheel 23. Said wheel is provided about its periphery with spaced rubber type, as indicated by 24. In its end said wheel is provided with a plurality of spaced apertures 25 which may be selectively engaged by a stud 26 provided on a spring metal latch piece 27 secured to the frame arm 21 for retaining the wheel in adjusted rotary positions to present a predetermined type in the printing line.

Type forming names, numerals or other characters are also provided to be detachably connected to the frame-bar 17. To this end, the type words, as 34, preferably formed of rubber, are glued or otherwise secured to blocks 29. These blocks are each of an angular form to afford a limb 30 to seat against the inner edge 31 of the frame-bar 17 and a limb 32 to be juxtaposed with the under face of such bar.

To detachably secure a type block 29 to the bar, I employ U-shaped metal clips 33 which are adapted to be sprung over the bar and a block to embrace the same, as best shown in Fig. 4. To prevent the accidental dislodgment of the blocks or the clips, the blocks and bar-member are desirably provided with recesses 29¹ and 17¹ to accommodate the bow-shaped side elements of the clips.

To employ the printing devices so far explained, the type attached to the bar and those of the wheel which are brought into alinement therewith are inked, as by an inking roller such as ordinarily used in printing shops, whereupon the frame is swung by the operator's hand to cause the exposed type to impinge the box and thereby mark the latter. The operator removes his

hand and the frame is withdrawn into position such as shown in Fig. 2 by means of a spring 35, Fig. 1.

Where the printing device is used with the before described box-cover holding machine, the printing may be automatically performed by the provision of a lever fulcrumed to the rod 19 and having an arm 36 which is adapted to engage the frame-bar 17 to thereby push the same into printing position when the lower arm 37 of the lever is swung outwardly. Such action is accomplished by an attachment 38 secured to a platform member 8 encountering a cam-face 37¹ provided on the lever arm 37 during a descending movement of the platform 7.

The referred to automatic devices for operating the printing frame are, however, not essential as the frame may be controlled independently by the operator's hand.

It is the usual practice in certain sections to mark on the boxes of apples, a number indicating the name of the orchard or packer, also the variety and quality of the fruit which are packed in particular boxes. Such names or equivalent designating characters are preferably afforded through the medium of block-carrying type upon the frame-bar 17. It is also customary to mark on the box the number of apples which it contains and for which purpose the type on the periphery of the wheel is used, enabling the operator to readily turn the same, as may be required in the successively packed boxes.

What I claim as my invention, is—

1. In a marking machine, the combination with a table, a frame hingedly connected thereto and having a horizontal bar-member, a type-block, and means for detachably

securing the latter to said bar, of a type-wheel rotatably connected to said frame, and means carried by the frame for securing the wheel in selected rotary positions.

2. In a machine of the class described, the combination with a table, of a frame hingedly connected thereto, a spring tending to hold the frame in inoperative position, a plurality of type-blocks detachably connected to said frame, a wheel having type on its periphery rotatably connected to said frame, and means engageable with the wheel for securing the same in selected rotary positions.

3. In a marking machine of the class described, a vibratory frame having a horizontal bar-member provided with a longitudinal groove, a type-block having a shoulder adapted to seat upon an edge of said bar-member, said type-block being formed with a longitudinal groove, and means engaging in the grooves of said bar-member and the block whereby the latter is detachably connected to the bar-member.

4. The combination with a box-head holding machine comprising a table, an elevator operatively connected to the table, and means for raising said elevator, of printing devices comprising a type-carrying frame hingedly connected to the table, a spring acting to yieldingly hold said frame in inoperative position, and means operated by the elevator whereby the frame is actuated in opposition to said spring.

Signed at Seattle, Wash., this 9th day of October, 1914.

JOHN N. SHOTWELL.

Witnesses:

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