

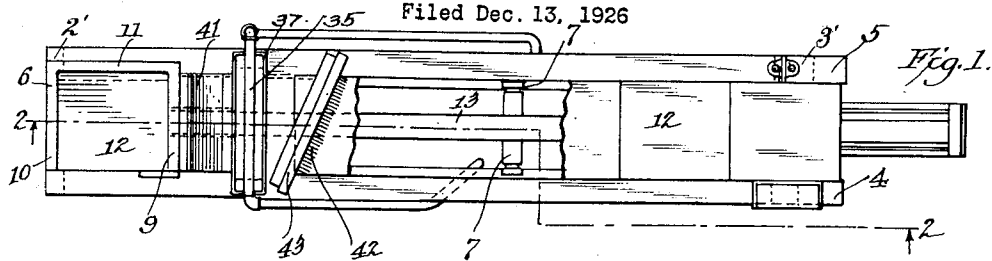
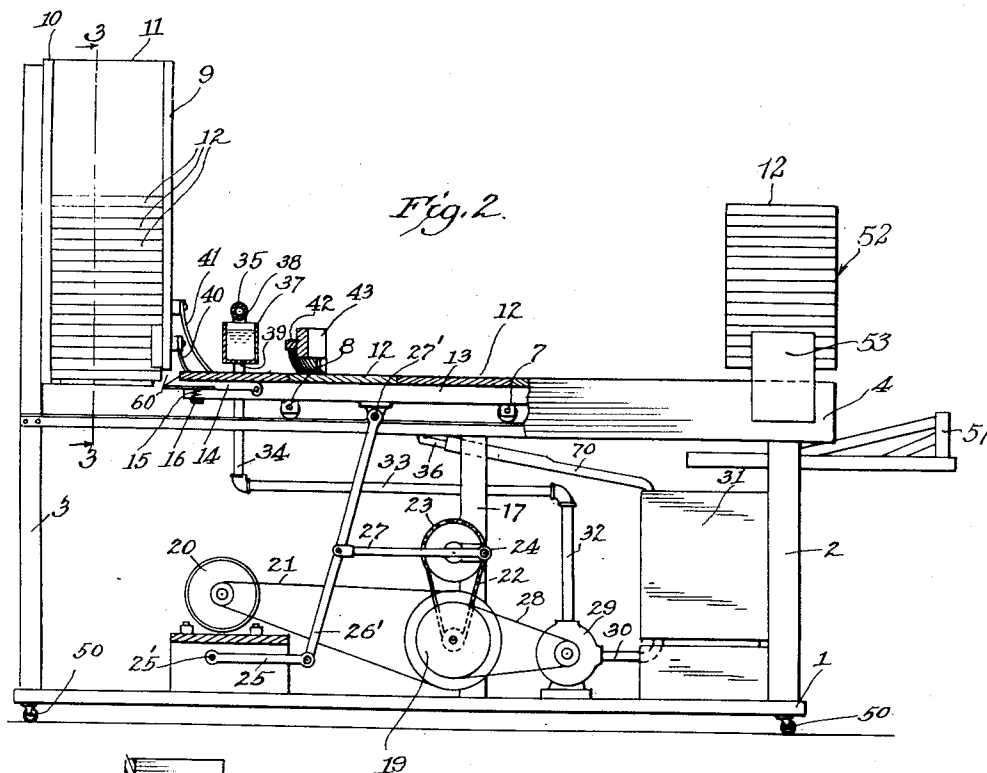
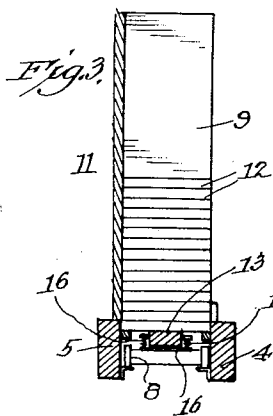
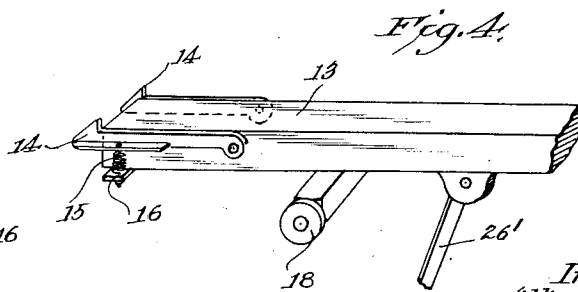
Dec. 13, 1927.

W. F. BOETTGER

1,652,697

LABELING MACHINE

Filed Dec. 13, 1926



Inventor:
William F. Boettger
by *Harvard & Miller*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM F. BOETTGER, OF REDLANDS, CALIFORNIA.

LABELING MACHINE.

Application filed December 13, 1926. Serial No. 154,565.

This invention relates to a labeling machine.

An object of this invention is to provide a machine whereby the heads of wooden boxes are stacked in a hopper and are moved from the same in a horizontal path and paste is applied thereto, and an operator manually places the labels on the paste.

Another object of this invention is to provide a machine which is efficient in its operation and which consists of relatively few moving parts and is unlikely to become disabled.

With the foregoing and other objects in view which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

Figure 1 is a plan view of my machine in assembled relation,

Fig. 2 is a section taken along the line 2—2 of Fig. 1,

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2, and

Fig. 4 is a perspective view of the head device, showing the operative parts of the same in assembled relation.

Referring to the accompanying drawings wherein similar reference characters designate similar parts throughout, a base frame is provided at 1 which is rectangular in shape and has extending upwardly therefrom supporting members 2, 3, 2', 3', 17 and 18, at the upper ends of which are attached side bars 4 and 5. Connecting these side bars are an end bar 6 and a plurality of horizontal rollers 7 and 8. Resting on one end of the side bars 4 and 5 is a vertical hopper having side walls 9 and 10 and a rear wall 11 in which are disposed a plurality of wooden box heads 12. The above recited parts constitute supporting elements of my machine. Resting on the rollers 7 and 8 is a horizontal slidable member 13 having latch members 14 pivoted near one end thereof, these latch members being normally held in the position shown in Fig. 2 by means of coil springs 15 resting on a cross bar 16.

As stated hereinbefore, the slidable member 13 and latch members 14 are adapted to move longitudinally of the machine and the means for moving the same will now be described. Journaled to a pair of the sup-

porting members 17 and 18 is a band wheel 19 which is attached to a suitable source of electric power shown at 20 by means of a belt 21. This band wheel is geared by means of a suitable chain 22 to a crank wheel 23 from which there extends a crank arm 24. A link 25 is pivoted at 25' to a stationary support and the other end of the same is pivoted to a link 26'. Another link 27 is pivoted intermediate the link 26' and to the crank arm 24, and the upper end of the link 26 is pivoted at 27' to the sliding member 13. It will be obvious that as the band wheel imparts rotation to the crank wheel 23, the slidable member 13 will have imparted thereto reciprocating motion in a horizontal plane. The band wheel is furthermore connected by means of a suitable belt 28 to a pump 29, which pump is suitably connected by means of the pipe 30 to a reservoir 31. A series of pipes 32, 33, 34, 35 and 36 carry fluid or paste from the pump in an angular path above a container 37 and back to the reservoir 31. The pipe 35 just above the container 37 is provided with a series of apertures 38, whereby the paste in the pipe 35 may be caught by the container 37. A series of apertures 39 is formed in the bottom of the container 37, and these apertures are adapted to relieve the container of paste whereby the same may be evenly spread over the heads 12 as they move on the slidable frame 13.

A brush member 40 is permanently attached to the side of the hopper and is adapted to remove sawdust, dirt or other foreign matter from the face of the box heads before they pass under the container 37. A strip 41 of suitable material, such as leather, rubber or the like, is similarly fastened to the side of the hopper and is adapted to bear against the head of the box heads as they emerge from the hopper. The function of the strip of material is to prevent flow of the liquid backwardly such as would contaminate the brush member 40. A second brush member 42 is attached to a suitable support 43 and is arranged diagonally of the slidable frame and is adapted to aid in evenly spreading the adhesive material over the heads of the boxes. The entire structure may be placed upon suitable casters 50, if so desired. A stacking machine may be employed for use in connection with my device at one end thereof and such stacking machine forms the subject

matter of my co-pending application Serial No. 154,565, filed December 13, 1926.

The stacking device consists of a table, not shown, which is vertically reciprocated by means of inclines 51 which are horizontally reciprocated and engage the table. The table moves the box heads vertically upward, stacking them in a pile, indicated at 52. Friction members, indicated at 53, at opposite sides of the table prevent any downward movement of the box heads 12, as more fully described in the said copending application.

The operation of my device is as follows: The wooden box heads are placed in superimposed relation in the hopper. When the motor 20 is started, the crank wheel 23 and the pump commence their operation. By means of the links 27, 26' and 25 the slidable member 13 is caused to move backwardly and forwardly on the rollers in simple harmonic motion. At each consecutive stroke of the slidable member, the latch members 14 engage one of the box heads and pull the same through the aperture 60 under the brush member 40, the flexible strip 41, the paste container 37 and the spreading brush 42. As the slidable member is returned for the latches 14 to engage the next box head, the box head previously removed abuts against the succeeding box head and is slid along the member 13. This operation is continuous until all of the box heads have been removed from the hopper. By means of the pump 29 fluid is circulated through the pipes 32, 33, 34, 35 and 36 to the drain 70 and thence back to the reservoir 31, some of the same escaping through the apertures 38 into the container 37 and onto the top of the box heads 12.

It is obvious then that I have provided a construction which consists of relatively few moving parts, which is strong and durable, and which is well adapted for the purpose for which it was designed.

It will be understood that various changes

in the detail of construction may be made without departing from the spirit and scope of the invention as defined by the appended claims.

I claim:

1. A labeling machine comprising in combination a hopper adapted to retain a plurality of box heads, a slidable latch member for removing a head from said hopper, a brush for cleaning said head as it is withdrawn, a fluid receptacle adapted to spray fluid on said top, means preventing said fluid from flowing onto said brush, and a spreader for spreading said fluid on said head.

2. A labeling machine comprising in combination a hopper adapted to house box heads, a slidable member having a latch member attached thereto, said latch member being adapted to withdraw a head from said hopper, a cleaning brush and a spreading brush over said member, a paste receptacle having an aperture above said member, a circulating system associated with said paste receptacle, and a single means for operating said slidable member and said circulating system.

3. A labeling machine comprising in combination a hopper adapted to contain a plurality of box heads, a slidable latch member for removing a head from said hopper, a brush for cleaning said head as it is withdrawn, a fluid receptacle adapted to supply fluid on said head, and a spreader for spreading said fluid on said head.

4. A labeling machine comprising in combination a conveyer for conveying box heads, a brush mounted above said conveyer for cleaning said heads as they are moved, a fluid receptacle adapted to spray fluid on said heads, means preventing said fluid from flowing on to said brush, and a spreader for spreading said fluid on said heads.

In testimony whereof I have signed my name to this specification.

WM. F. BOETTGER.