

W. R. WULFECK.
LABELING MACHINE.
APPLICATION FILED JUNE 9, 1910.

994,357.

Patented June 6, 1911.

2 SHEETS—SHEET 1.

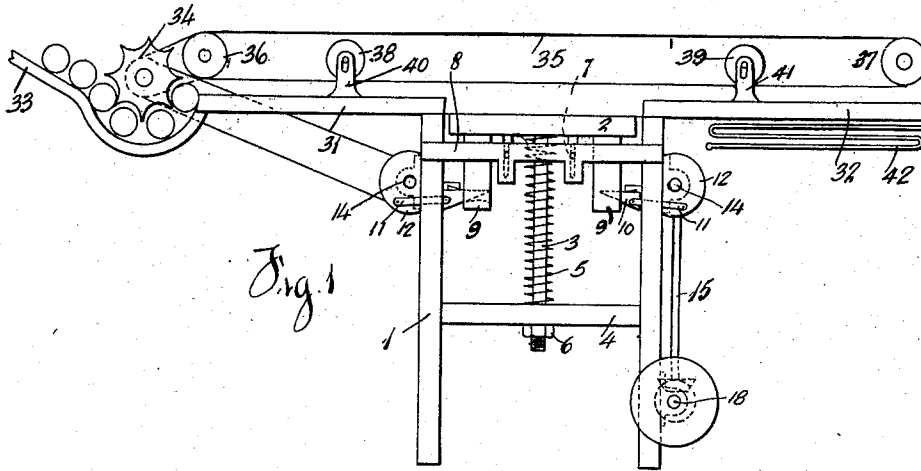


Fig. 1

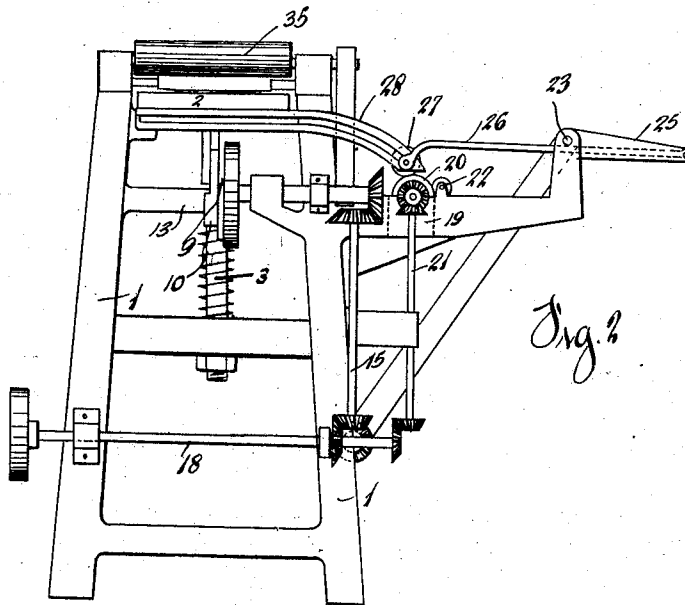


Fig. 2

Witnesses.
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Charles W. Hoffman

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Walter R. Wulfeck.
By Arthur H. Ewald,
Attorney

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Fig 3

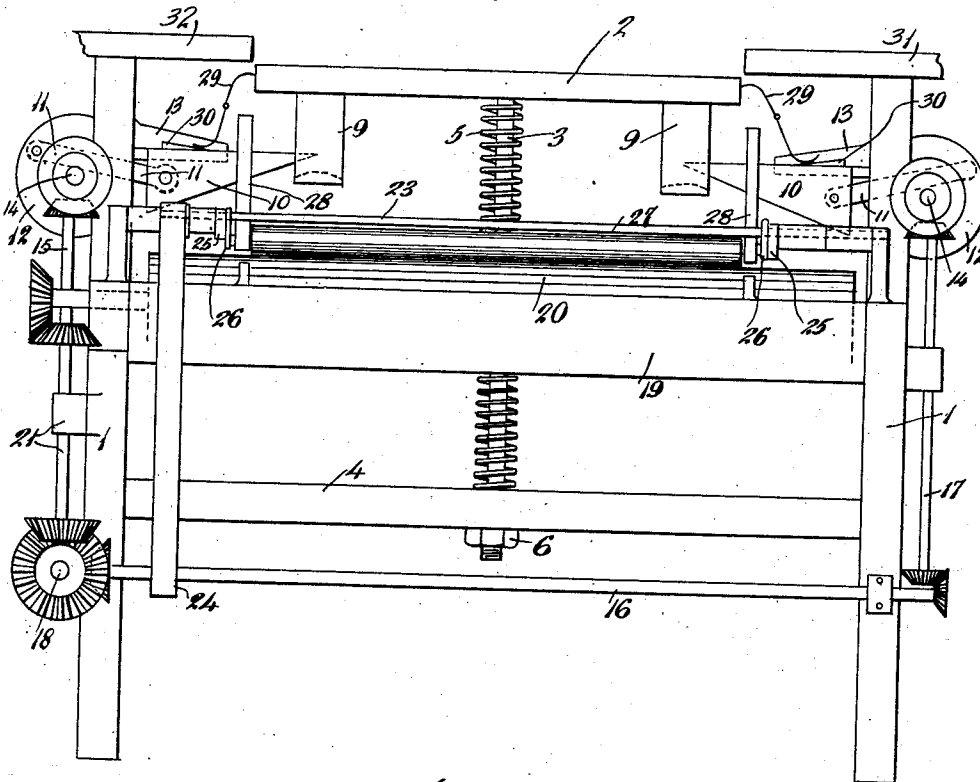
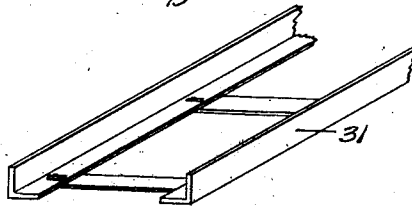


Fig 4



Witnesses
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UNITED STATES PATENT OFFICE.

WALTER R. WULFECK, OF CINCINNATI, OHIO.

LABELING-MACHINE.

994,357.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed June 9, 1910. Serial No. 566,032.

To all whom it may concern:

Be it known that I, WALTER R. WULFECK, a citizen of the United States, and a resident of Cincinnati, county of Hamilton, and State of Ohio, have invented a new and useful Improvement in Labeling-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to, and has for its object, the construction of a labeling machine in which the paste is first spread over the entire surface of the reverse side of the label, and the label, while in a moist and pliable condition, is then applied to the can or other vessel; the liability of the label to be torn off, where the adhesive is applied to only a portion of the back, is thus overcome, as is also the failure to adhere when not previously moistened, as where the adhesive is applied in the first instance to the surface to which the label is to be attached.

In the drawings: Figure 1 is a front elevation with parts omitted for the sake of clearness. Fig. 2 is an end elevation. Fig. 3 is a rear elevation with the paste smoothing roller omitted. Fig. 4 is a detailed view of the can carrying rack.

The numeral 1 indicates the frame and supporting standards of my machine. Supported between said standards is the table 2, upon which the labels are stacked, with the backs upward. Said table is arranged to reciprocate in a vertical plane, and is centrally mounted on a shaft or plunger 3, the lower extremity of which extends through a hole in a plate 4, also supported between said standards. A coil spring 5, around said plunger and bearing upon said plate 4 and the bottom of said table, maintains the latter normally at a proper elevation for applying a label, previously supplied with the necessary adhesive, to the can or other vessel. The elevation of said table is adjustable by means of a nut 6 on the end of said plunger, below said plate. In order to prevent the table 2 from tilting, said table is provided with shoulders 7 on at least two of its edges, which work in slots in the plates 8, said plates being also mounted between the standards. To cause said table to reciprocate in a vertical plane at the required intervals, I provide on the bottom of said table

and near the ends thereof, the blocks 9—9, each of said blocks being provided with a slot; in these slots the cams 10—10, eccentrically mounted, by means of links 11, on the wheels 12, work, to lower the table against the pressure of the spring 5. The cams 10 are prevented from rising when driven inwardly into said slots by shoulders on said cams, which slide against correlated shoulders on the blocks 13, mounted on the standards 1; and the cams are thus compelled to take effect against the bottoms of the slots in the blocks 9, thereby lowering the table. The wheels 12 are connected on shaft 14—14, supported by bearings on the standards, and these shafts are driven, through the intermediation of the shafts 15, 16 and 17, also mounted in suitable bearings on the standards, and appropriate bevel gears, by the main shaft 18. From the above it will be seen that at each revolution of the wheels 12, the cams 10 will be forced into, and again withdrawn from, the slots in the blocks 9, and the table 2 will thus be lowered, and, upon the withdrawing of the cams, will rise again, actuated in the latter movement by the spring 5.

Mounted in suitable supports on the rear of the frame 1, is the paste trough 19, within which a roller 20, is driven, through the intermediation of the shaft 21 and appropriate bevel gears, by the main shaft 18. In back of said roller 20 is a smaller roller 22, which bears on, and is driven by, said roller 20, for the purpose of smoothing any lumps in the paste gathered by said roller 20. Journalled in supports on said frame, and at the rear of the paste roller is the shaft 23, driven by a belt from the pulley 24 on the shaft 16. Said shaft 23 carries on each of its ends an arm 25, the free ends of said arms being connected, by means of links 26 to the ends of the paste distributing roller 27. Said roller 27 is mounted in the slotted frame or rack 28, supported on the standards 1, in which rack said roller reciprocates, when actuated by the turning of the arms 25 from a point contacting with the roller 20 to the opposite side of the table 2; and the said rack 28 is located at an elevation which will enable said paste distributing roller to pass over said table 2, when lowered as above described; when said table is up, however, it is above the level of said rack. For the pur-

pose of holding the labels firmly on the table while the roller 27 is passing over and pasting the upper label, the spring clamps 29 are provided. These clamps are pivotally
 5 mounted on rods between the standards, and are so balanced by weighting the lower portion, that normally the clamping end will be out of the path of the table. A cam surface, 30, on the upper side of each of the cams 10,
 10 raises the lower portion of each of said clamps, however, simultaneously with the lowering of the table, and causes the upper portion to descend inwardly and over the edges of the top label, clamping the labels
 15 as desired, and preventing the paste distributing roller from dislocating or removing the same.

At one end of the table 2, and on a level with said table when up, is the rack or
 20 frame 31; said rack extends to the edge of said table, and serves to convey the cans or other vessels thereto. A similar rack 32 leads from the opposite end of the table to carry the cans therefrom, after said cans
 25 have been properly labeled. Each of said racks is constructed of two angle bars with the necessary cross-bars at suitable intervals, as shown in detail in Fig. 4; and said
 30 racks are adjustable to meet the size of the vessels to be labeled by means of bolts which connect said angle bars and said cross-bars, and slots in said angle bars at the points of
 35 connection, as shown. The heads of the bolts are sunk so as not to interfere with the passing of the cans. The receiving end of the rack 31 forms a chute 33, toward a
 40 depressed portion, which serves as a sort of rest for the cans; within this depression the spacing wheel 34 is rotated by a belt from a pulley on one of the shafts 14. Said
 45 spacing wheel delivers the cans at suitable intervals to the main portion of the rack, where they are carried along by friction of the belt 35, which travels around the pulleys 36 and 37, pulley 36 being mounted on
 50 a shaft driven by a belt from a pulley on the spacing wheel shaft. Within the belt 35, near each end of the table 2 are heavy idlers 38 and 39; these are mounted in slots in supports 40 and 41 on the racks, and
 55 serve to hold the belt firmly against the can, while said can is passing over the table to receive its label. Beneath the rack 32 is a steam coil 42 for the purpose of drying the
 60 paste on the labeled cans while said cans are passing through said rack just before delivery.

The operation of my new labeling machine is as follows: The cans being placed
 60 by the operator in the chute are taken up, one at a time, by the spacing wheel and delivered at the proper intervals to the point where they are acted upon by the belt 35. While traveling through the rack 31, the
 65 table, stacked with labels, is lowered as

above described, and the paste distributing roller passes over the table, applying a coat of paste to the uppermost label, so that when the can reaches the end of the rack 31, the table, having reascended, is again
 70 in its elevated position with a wet label on a level with said rack. Over this label the can then passes, the label adhering thereto as will be readily understood; and before
 75 said table is again lowered, the labeled can is delivered to rack 32, where it passes over the steam coil 42 and is dried.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a labeling machine, the combination with a reciprocating table, of a reciprocating paste-distributing roller, the movements of said table and said roller being adapted to cooperate, said table and said
 80 roller performing each a complete double stroke during each operation of said machine, said roller intersecting the line of reciprocation of said table above said table and in a plane substantially parallel thereto.

2. In a labeling machine the combination with a reciprocating table, of a reciprocating paste-distributing roller, the movements of said table and said roller being adapted to cooperate, said table and said roller performing each a complete double stroke during each operation of the machine, said
 90 roller intersecting the line of reciprocation of said table above said table and in a plane substantially parallel thereto, a spacer adapted to deliver articles at regular intervals during the movements of said table, and means to convey said articles from said
 95 spacer to said table.

3. In a labeling machine the combination with a reciprocating table, of a reciprocating paste-distributing roller, the movements of said table and said roller being adapted to cooperate, said table and said
 100 roller performing each a complete double stroke during each operation of said machine, said roller intersecting the line of reciprocation of said table above said table and in a plane substantially parallel thereto, a spacer adapted to deliver articles at
 105 regular intervals during the movements of said table, means to convey said articles from said spacer to said table and to move said articles across said table.

4. In a labeling machine the combination with a reciprocating table, of a reciprocating paste-distributing roller, the movements of said table and said roller being adapted to cooperate, said roller intersecting the line
 110 of reciprocation of said table above said table and in a plane substantially parallel thereto to administer an adhesive to the back of a label on said table, a spacer adapted to deliver articles at regular intervals during
 115 the movements of said table, means to con-

vey said articles from said spacer to said
table and to move said articles across said
table to receive labels to which adhesive has
been previously administered by said roller,
5 and means to dry said adhesive after said
articles have left said table.

In testimony whereof I have hereunto

subscribed my name at Cincinnati, county
of Hamilton and State of Ohio, this 31 day
of May 1910.

WALTER R. WULFECK.

Witnesses:

EARL W. GRIFFIN,

CHARLES W. HOFFMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
