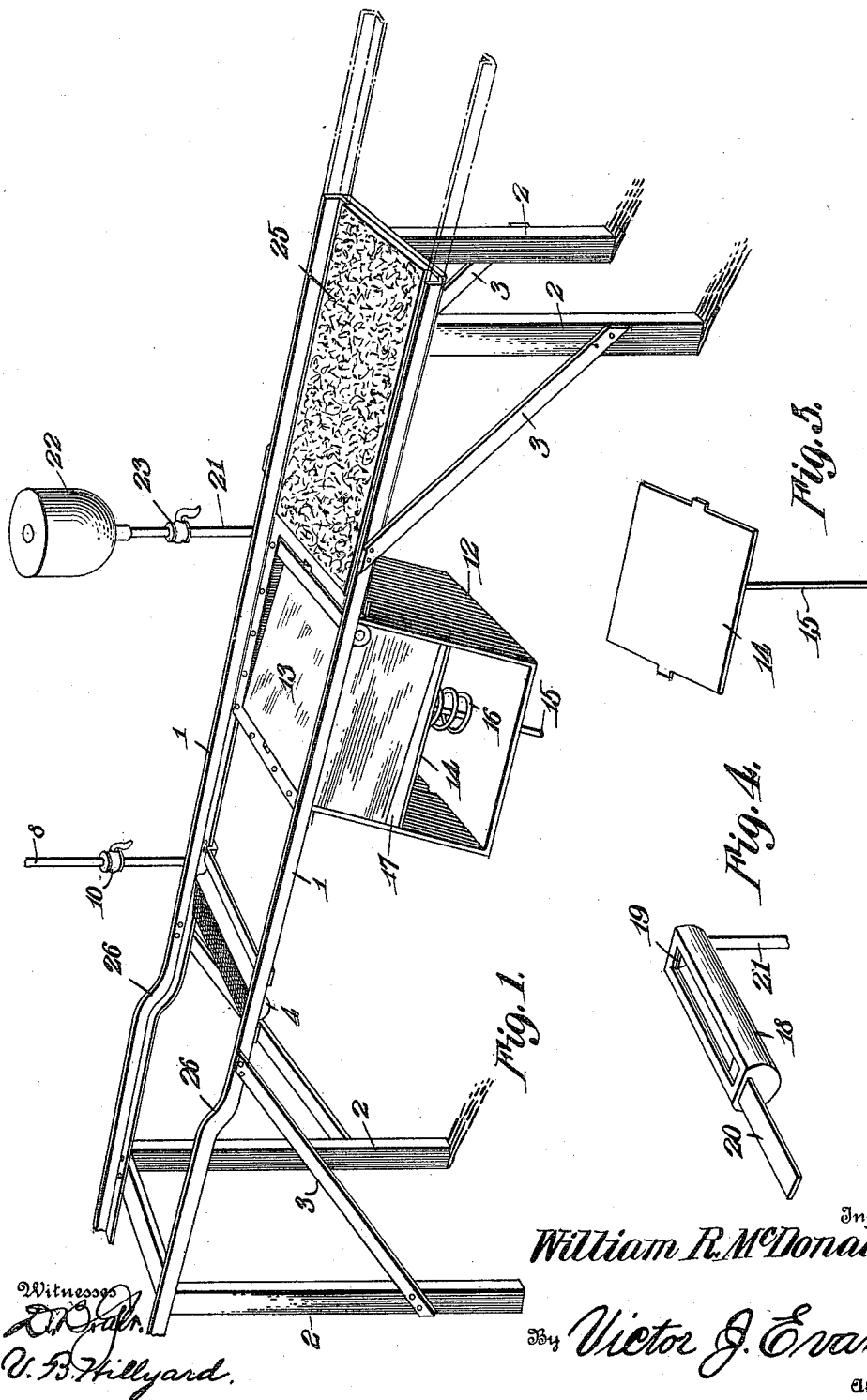


W. R. McDONALD.
CAN LABELING MACHINE.
APPLICATION FILED MAR. 31, 1909.

983,157.

Patented Jan. 31, 1911.

2 SHEETS—SHEET 1.



W. R. McDONALD.
CAN LABELING MACHINE.
APPLICATION FILED MAR. 31, 1909.

983,157.

Patented Jan. 31, 1911.

2 SHEETS—SHEET 2.

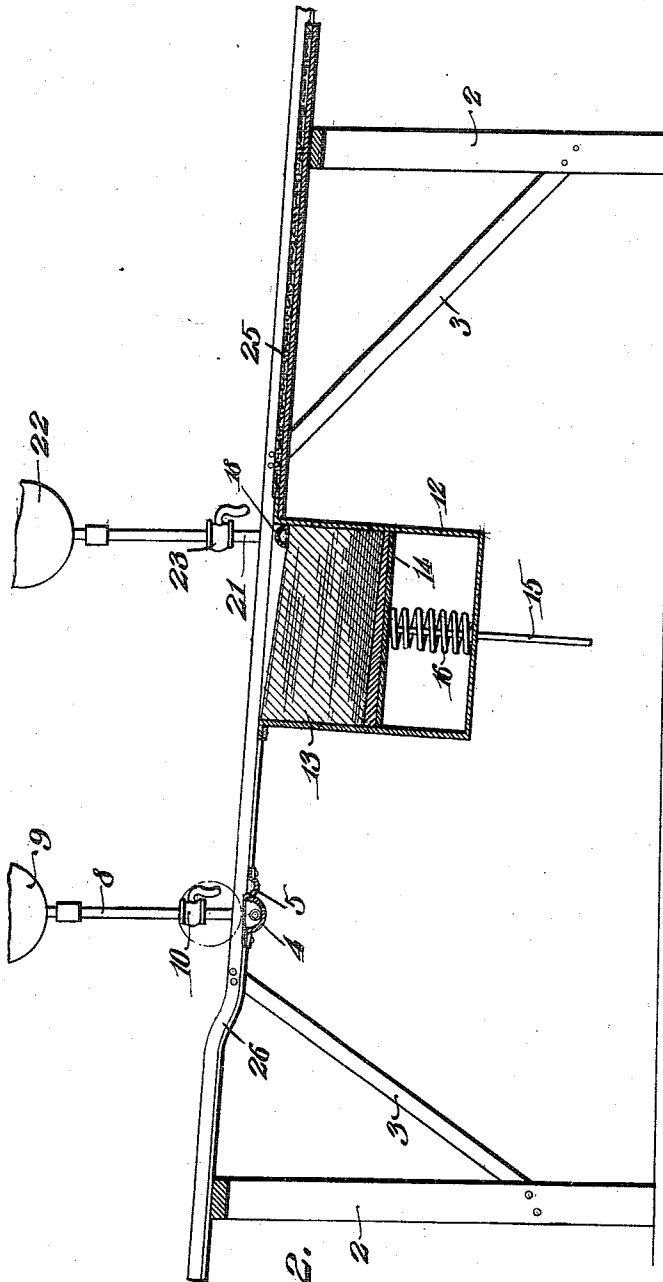


Fig. 2.

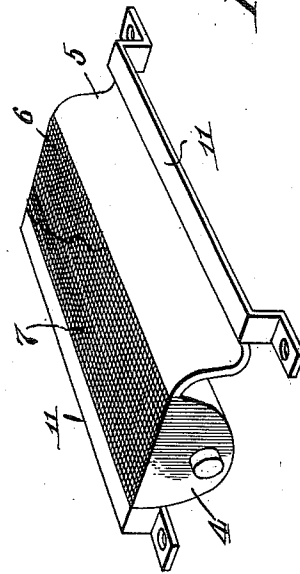


Fig. 3.

Witnesses
J. G. J. Jr.
U. B. Hillyard.

Inventor
William R. McDonald,
By Victor J. Evans.
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM R. McDONALD, OF BELLINGHAM, WASHINGTON, ASSIGNOR OF SIXTY ONE-HUNDREDTHS TO J. E. McREYNOLDS, OF SEATTLE, WASHINGTON.

CAN-LABELING MACHINE.

983,157.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed March 31, 1909. Serial No. 486,920.

To all whom it may concern:

Be it known that I, WILLIAM R. McDONALD, a citizen of the United States, residing at Bellingham, in the county of Whatcom and State of Washington, have invented new and useful Improvements in Can-Labeling Machines, of which the following is a specification.

The purpose of this invention is to provide a machine for applying labels to packages such as cans, said machine operating by gravitative action and embodying a track upon which the cans or like circular packages are adapted to travel from one point to another and in transit receiving paste or like adhesive and the labels, the latter being applied and made secure by means of a yielding surface over which the can or like package rolls.

The invention contemplates an inclined track having an offset portion forming a drop and acting in the dual capacity of increasing the speed of the cans or packages and at the same time properly spacing the same. A paster is located in the length of the track to apply a strip of paste to the body of the can or package. A label holder is arranged in the length of the track a distance from the can paster to apply the label thereto, said label being wrapped about the can as the latter moves along the track. A label paster is located near the rear end of the label to apply a strip of paste thereto and also to limit the upward movement of the topmost label of a pile. A yieldable label smoothing and pressing surface is disposed in the rear of the label paster to cause the label to wrap closely about the can and to press the pasted end of the label close against the end of the label first taken up by the can or package in its travel.

The invention further consists of the novel features, details of construction and combinations of parts which hereinafter will be more particularly set forth, illustrated in the accompanying drawings and pointed out in the appended claims.

Referring to the drawings forming a part of the specifications: Figure 1 is a perspective view of a can labeling machine

embodying the invention. Fig. 2 is a vertical central longitudinal section of the machine. Fig. 3 is a perspective view of the can paster. Fig. 4 is a perspective view of the label paster inverted. Fig. 5 is a perspective view of the follower for supporting the pile of labels.

Corresponding and like parts are referred to in the following description and indicated in all the views in the drawings by the same reference characters.

The machine is devised most especially for applying labels to cans, containing vegetables, fruits, fish and the like although it may be used advantageously in applying labels to other types of packages of such form as a roll upon a track or like support.

The machine comprises a track which is inclined throughout its length to the horizontal, the inclination being such as best adapted for the particular work in hand. The track must be of such construction as to support the cans or packages and direct the same in their travel thereby preventing displacement and insuring accuracy in the application of the labels. As shown, the track comprises two angle bars 1 arranged in parallelism and with the wing or flange of each facing inward to form a supporting ledge and with a wing or flange projecting upwardly to form a guide to prevent lateral displacement of the cans or packages while rolling over the track. The bars 1 are supported in any manner as by legs 2, the upper legs being higher than the lower legs to give the proper inclination to the track. Braces 3 strengthen the framework and are interposed between the legs 2 and the bars 1.

The can paster comprises a trough 4 extending transversely of the track, and provided at its lower side with an extension 5 forming a supplemental trough to catch any overflow of paste from the trough 4. The trough 4 is placed with its open side uppermost, said open side being provided with wire fabric 6 and a textile 7 whereby the paste is adapted to be applied directly to the body of the can in a strip without an excessive amount being fed thereto. The top of the can paster projects slightly above the

supporting part of the track so as to make positive engagement with the can and insure application of paste thereto. A pipe 8 supplies paste to the trough 4 and is engaged with an elevated tank 9 in which a quantity of paste is stored. A valve 10 in the length of the pipe 8 admits of regulating the supply of paste to the trough or cutting off said supply when the machine is not in use. Metal bars 11 along the edges of the troughs 4 and 5 provide means for securing the can paster to the bars 1, of the track.

The label holder 12 is of box form and is of a size to receive a pile of labels 13. A follower 14 is located within the label holder and is provided with a stem 15 which operates through the opening formed in the bottom of the holder. A spring 16 surrounds the stem 15 and is interposed between the follower 14 and the bottom of the holder and supports the pile of labels 13 and advances the same as the labels are used thereby insuring the topmost label of the pile always occupying a given position to be taken up by the can or package as the same rolls over the track by gravitative action. A support 17 is mounted upon the follower 14 and the pile of labels 13 is placed thereon. The support 17 tapers throughout its length and is placed with the thicker end facing the higher or receiving end of the track thereby elevating the receiving end of the label to a position to be taken up by the can or package as the same passes over the pile of labels. The label holder is located a distance from the can paster so that when the can reaches the pile of labels, the part thereof provided with the strip of paste comes opposite the head end of the label and picks up the same so that in the forward movement of the can, the label is wrapped about the can.

The label paster consists of a tube or hollow body 18 arranged transversely of the track and over the rear portion of the label holder so as to engage with the foot end of the topmost label. A slot 19 is formed in the lower face of the tube or body 18 and this slot is adapted to be closed by the topmost label pressed upward against the tube 18 by the spring 16. The lower side of the tube or hollow body 18 is flattened thereby enabling the application of a strip of paste to the foot end of the label. The slide 20 is provided for closing the slot or opening 19 when the machine is not in use, thereby preventing waste or drying out of the paste. A pipe 21 connects with one end of the tube or hollow body 18 and supplies paste thereto from an elevated tank 22, said pipe having a valve 23 in its length for regulating or cutting off the supply of paste as may be required. The label paster also serves as a stop to limit the upward move-

ment of the pile of labels and holds the topmost label spaced from the can or package a distance to admit of the top label being withdrawn from under the paster as the can or package rolls thereover.

A strip of felt 25 is located in the rear of the label holder and projects slightly above the supporting part of the track and is designed to smooth the labels about the cans or packages and to press the pasted end thereof close against the previously pasted end or against the body of the can according to conditions. The smoothing and pressing surface 25 may be of any material instead of felt which is yieldable, the same being applied to a board or other supporting surface.

It may be stated that the track may serve to convey cans or packages from one place as the canning department to another or the packing department, the labels being applied to the cans during their travel thereby saving the cost of handling and the time otherwise consumed in fixing the labels. The track is provided in its length with an offset or drop 26, the same being at a point in advance of the label paster so as to augment the speed of the can and at the same time to space the same. In practice, the cans or like packages are placed upon the elevated end of the track and roll down the same and as they reach the drop 26 the speed of the cans is materially increased preliminary to the labeling operation. The drop or deflection of the cans upon the offset portion 26 also serves in a measure to space the cans. When the can reaches the part 4 a strip of paste is applied directly to the body thereof, and a moment thereafter, the pasted portion of the can comes in contact with the head end of the topmost label and lifts the same and wraps it about the can as the latter advances over the track, finally withdrawing the foot end of the label from beneath the part 18, the label being smoothed and made secure by rolling over the surface 25 in the manner herein stated.

Having thus described the invention, what is claimed, is:

1. In a can labeling machine, the combination of a track over which the cans to be labeled are rolled, a can paster located in the length of the track comprising a trough adapted to have paste supplied thereto and an auxiliary trough adjacent to and forming a part of the paste trough to receive any excess of paste.

2. The herein described can labeling machine comprising a straight track inclined to the horizontal to cause the cans to roll thereover by gravitative action, said track having an abrupt drop or offset portion, a can paster arranged beneath the track in the rear of the offset drop portion thereof, a receptacle adjacent the paster to receive any

excess of paste, a label holder beneath the track, a label paster extended over the rear portion of the label holder and acting as a stop to limit the upward movement of the labels, and a yieldable surface in the plane of the track for smoothing and pressing the labels about the cans.

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

WILLIAM R. McDONALD.

Witnesses:

GEORGE HUBBARD,
O. D. McDONALD.