

June 30, 1931.

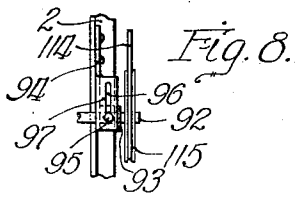
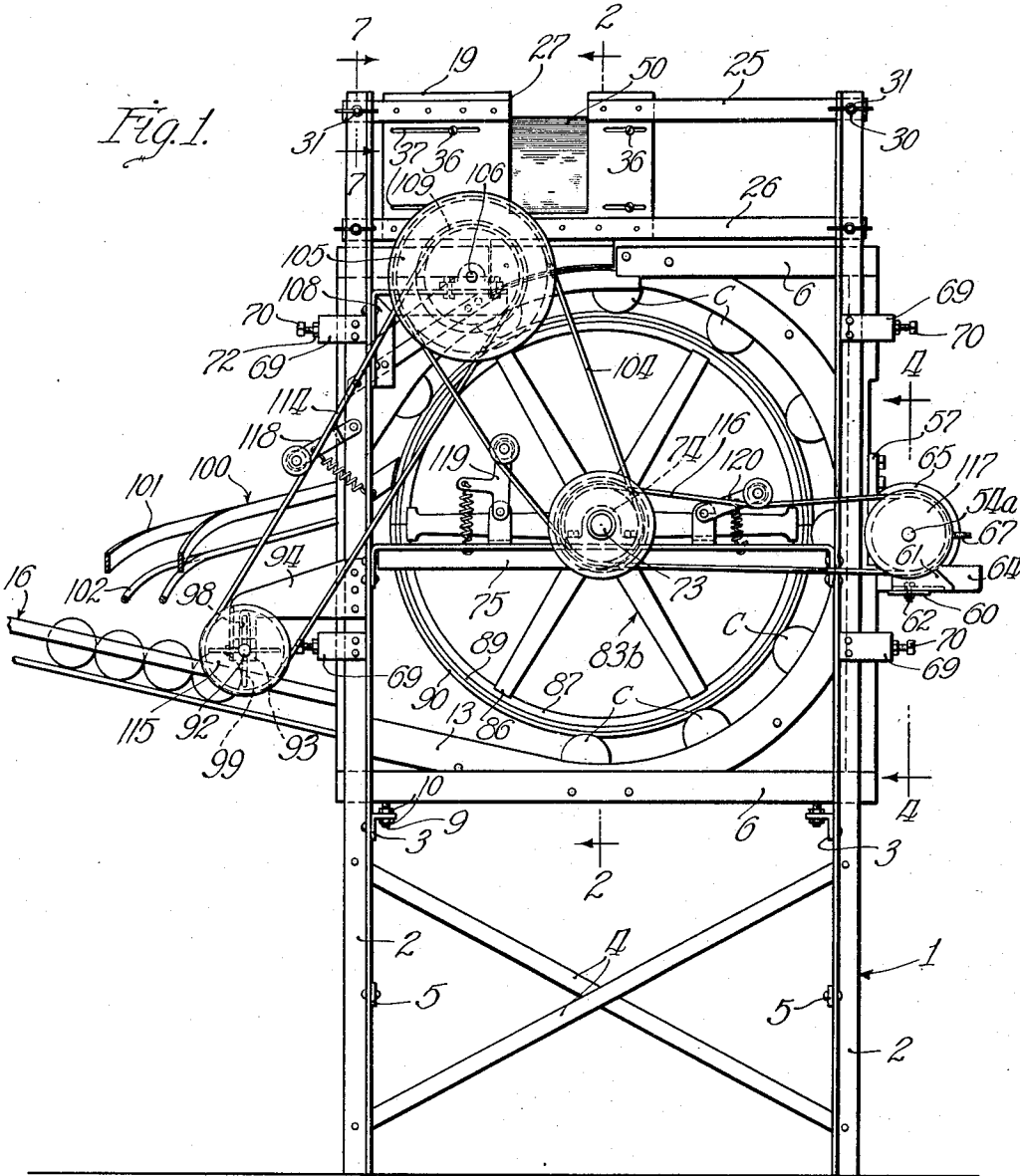
C. C. KRONE

1,812,007

CAN LABELING MACHINE

Filed April 24, 1929

4 Sheets-Sheet 1



Inventor
Christian Carl Krone
By Brown, Jackson, Boettcher & Skinner.

Attys.

June 30, 1931.

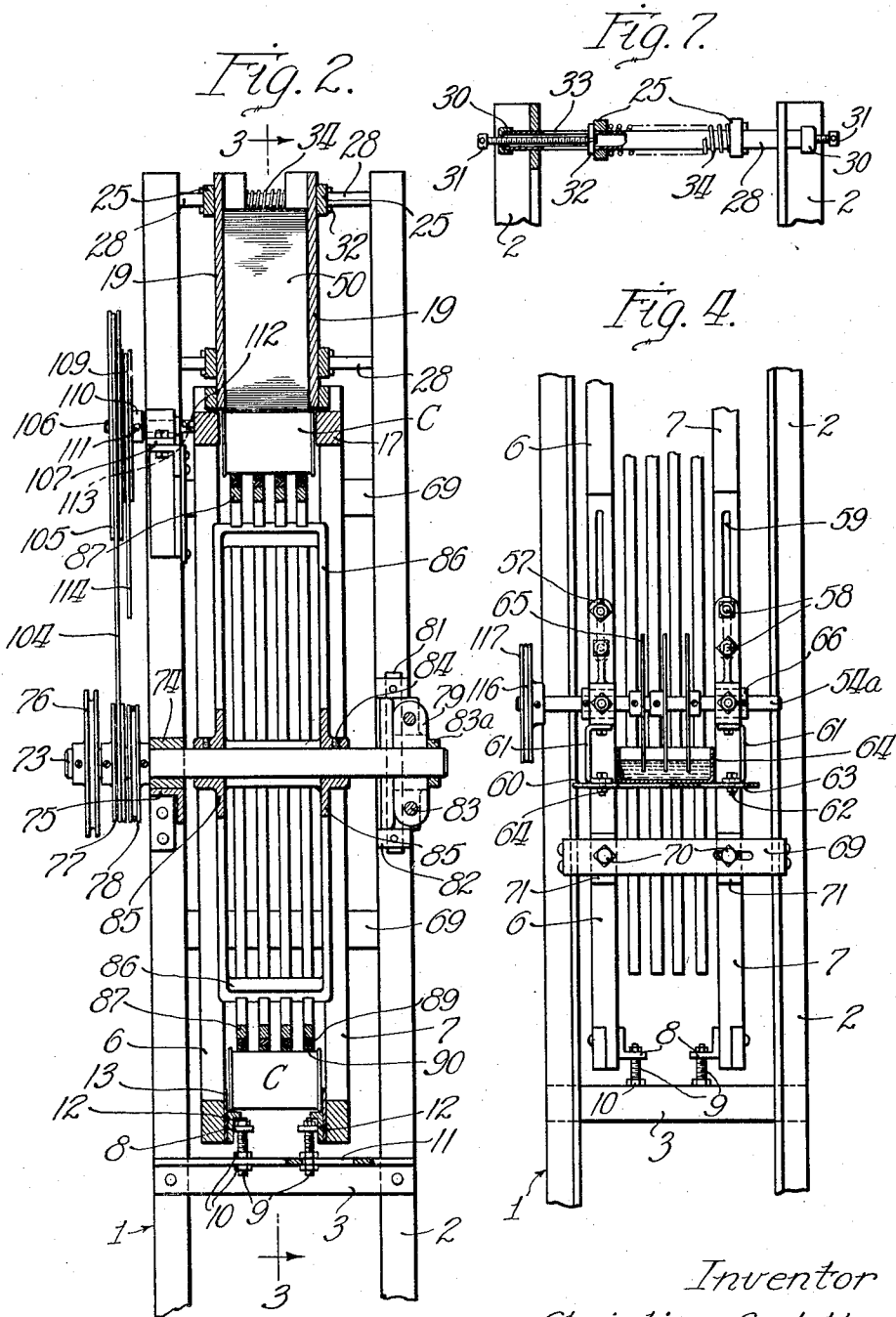
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CAN LABELING MACHINE

Filed April 24, 1929

4 Sheets-Sheet, 2



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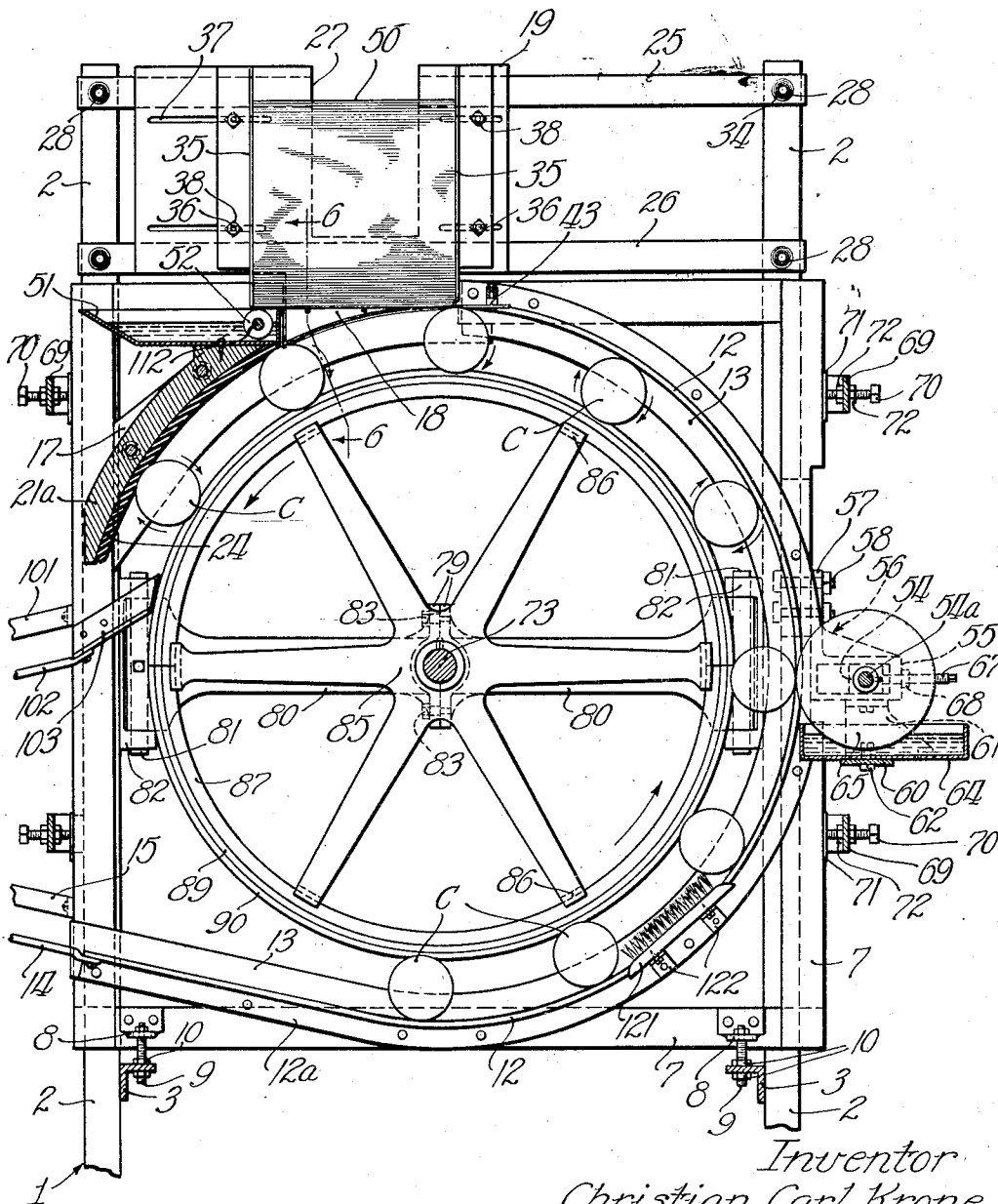
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4 Sheets-Sheet. 3

Fig. 3.



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4 Sheets-Sheet, 4

Fig. 5.

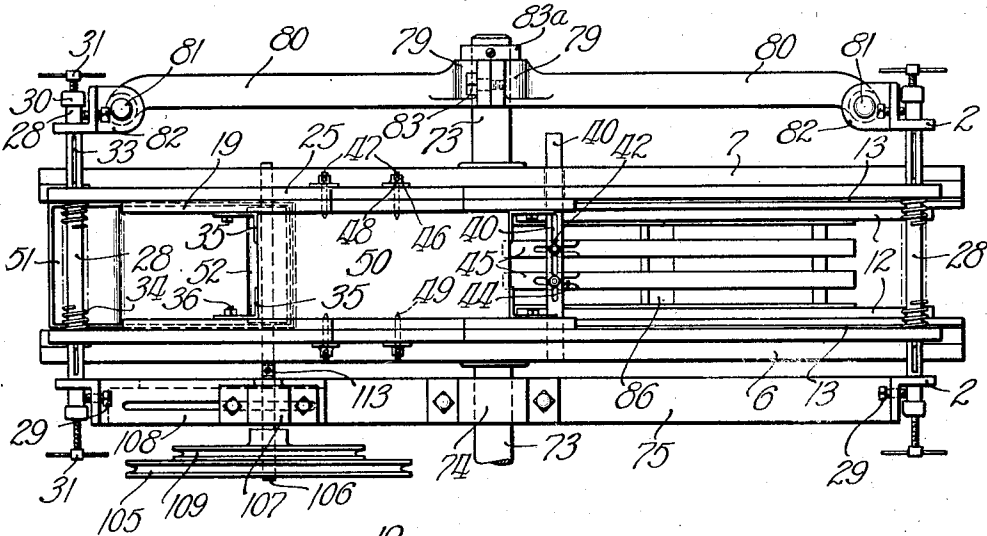
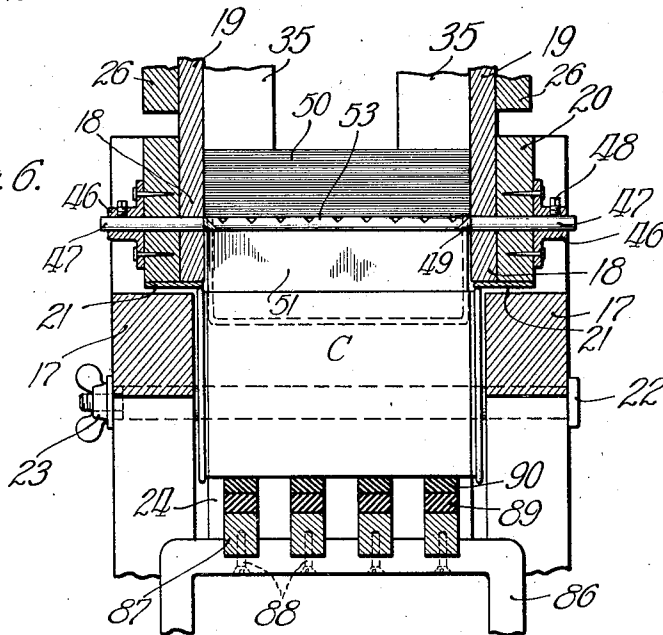


Fig. 6.



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UNITED STATES PATENT OFFICE

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CAN LABELING MACHINE

Application filed April 24, 1929. Serial No. 357,698.

This invention relates to a labeling machine and more particularly to a machine for labeling cans and like articles.

In can labeling machines which are successful commercially, and with which I am familiar, the labels are disposed in a stack in a hopper and are urged toward the track along which the cans are fed by a follower or equivalent means for exerting pressure on the outer face of the stack. The cans are spotted with an adhesive in advance of the hopper and are then fed along the track into position to cause the adhesive to contact the label at the inner face of the stack and withdraw it from the hopper, after which the can is fed beyond the hopper and is rotated so as to apply the label about the can.

In the more successful machines with which I am familiar the labels are disposed in a hopper positioned beneath the track, the labels being removed from the top of the stack, and a belt is suitably disposed for applying paste to the lap end of the label as it is withdrawn from the hopper. This belt is of necessity positioned above the stack of labels. In machines of this type the label hopper holds from 500 to 1,000 labels. To assure satisfactory operation not more than 500 labels should be positioned in the hopper. These machines require several operators to each machine to properly feed and handle the cans and attend the machine. Such a machine, operating at normal speed, labels approximately 250 cases of cans per hour, each case containing 24 cans, that is, 6,000 cans per hour. When the labels in the hopper have been exhausted it is necessary to stop the machine in order to replenish the labels. This means a loss of time, at least several minutes, every time the labels are replenished. In addition, the paste from the lap pasting belt is apt to drip down over the labels in the hopper, where it hardens on the labels. This is apt to occur at any time. The paste runs down the sides of the label stack causing the labels to stick together so that several labels are pulled from the stack at a time. When this occurs the machine has to be

stopped, the label bed removed, and the stuck labels have to be separated or removed.

This results in a loss of time, as well as labels, in again starting the machine up and getting it into satisfactory running condition. During this time the several attendants are idle. Allowing a loss of one minute and a quarter every time the machine is stopped to renew the labels, which is conservative, this means, that in an 8 hour day there is a loss of at least two hours due, alone, to the necessity of stopping the machine to renew the labels, and several people are also rendered idle for this period, in addition to the loss of time incurred when the labels are stuck together, as above. The loss incurred, therefore, due to the necessity of stopping the machine to replenish the labels is considerable and it will be readily appreciated that a machine capable of satisfactorily labeling cans and other articles in which the labeling operation can be carried on continuously and the labels can be replenished without in any way interfering with proper operation of the machine, is of real merit in this art.

One of the main objects of my invention is to provide a machine for labeling cans and similar articles in which the supply of labels can be replenished without stoppage of the machine thus permitting continuous operation thereof. Another object is to provide means whereby adhesive is applied to the lap end of the labels, this adhesive applying means being disposed below the stack of labels whereby possibility of dripping of the paste onto the labels is eliminated. Another object is to provide a machine in which the adhesive or glue pot which contains the glue for spotting the cans is disposed above the track so that possibility of dirt and foreign material from the cans dropping into the glue is eliminated. It is also an important object of my invention to provide a method for continuously labeling cans, this method comprising as a step thereof the replenishing of the supply of labels during the labeling operation and without interference therewith, the labels being

maintained under adequate pressure at all times.

Further objects and advantages of my invention will appear from the detailed description.

Figure 1 is a side view of a machine constructed in accordance with my invention;

Figure 2 is a section taken substantially on line 2—2 of Figure 1;

Figure 3 is a section taken substantially on line 3—3 of Figure 2;

Figure 4 is a section taken substantially on line 4—4 of Figure 1, parts being shown in elevation;

Figure 5 is a plan view of the machine;

Figure 6 is a section, on an enlarged scale, taken substantially on line 6—6 of Figure 3;

Figure 7 is a section on an enlarged scale, taken substantially on line 7—7 of Figure 1;

Figure 8 is a detail of the mounting of the feed control member.

The machine comprises a main supporting frame 1 of rectangular shape in plan and elevation, this frame having corner angle uprights 2 suitably connected by cross angle bars 3 and brace strips 4 and 5. Rectangular frames 6 and 7, constructed of wood or other suitable material, are supported by the main frame. Frame 6 is provided with two angle brackets 8 secured to the lower bar of the frame adjacent the front and back of the machine. Screw rods 9 are suitably secured through these brackets and pass through the upper horizontal arms or flanges of angle bars 3. Nuts 10 are fitted upon the rod 9 at opposite faces of the upper arm of bar 3 and serve to effectively secure the screw rod to the bar.

Frame 7 is secured to the bars 3 in the same manner as frame 6 except that the upper arm of each bar 3 is provided with a longitudinally extending slot 11 through which the screw rod 9 extends, these slots permitting adjustment of frame 7 toward and away from frame 6.

An angle rail 12 is suitably secured to the inner face of each of the frames 6 and 7 with one arm projecting inwardly from the frame. Sheet metal strips 13 are riveted or otherwise suitably secured to rails 12 and project beyond the inwardly extending arms thereof, the rails and the strips 13 providing runways adapted for reception of the end portions of cans "C" or other articles of like nature. The lower portion of each rail 12 is provided with a straight portion 12—A which is inclined downwardly toward the curved or arcuate portion of the rail. A rod 14 is riveted or otherwise suitably secured to the under face of the inwardly projecting flange of the rail. There are two of these rods, one being secured to each rail. There are also two side strips 15 the lower ends of which are secured to the front bars

of the frames 6 and 7. The rods 14 and strips 15 constitute a feed chute 16 for supplying the cans "C" to the machine. When frame 7 is adjusted toward or away from frame 6 to adapt the machine to cans of different lengths, the effective width of chute 16 will be correspondingly adjusted to accommodate the width or length of cans for which the machine is adjusted.

A corner piece 17 extends across the forward upper corner of each of the frames 6 and 7 and is secured to the front and top bars thereof by nailing or in any other suitable manner, this piece being of approximately the same thickness as the front and top bars of the frame.

This corner piece also serves to tie together the two sections of the top bar of the frame, said top bar being cut away intermediate its end to provide space for depending flanges 18 of side boards 19 of a label hopper. The flanges 18 project inwardly a slight distance beyond the inner faces of the corner piece 17 (Figure 6), the lower edges of these flanges being flush with the lower edges of plates 20 suitably secured to the outer faces of the flanges. Metal strips 21 are secured to the lower edges of plates 20 and flanges 18 to provide track elements for the beaded end or head of the can "C", the corner pieces 17 serving to confine these cans against endwise movement. A block 21^a is suitably secured, as by bolts 22 and wing nuts 23, between the corner pieces 17. This block is provided, on its inner face, with a covering or layer of rubber 24, or other suitable resilient material of suitable thickness. The flanges 18 of plates or side boards 19, and the block 21^a, including the resilient covering 24 therefor, are curved on approximately the same radius as the rails 12 and cooperate therewith to form a track along which the cans or other articles are fed during the labeling operation. This track may be considered as composed, in effect, of two members adjustable toward and away from each other transversely of the main supporting frame, in the manner previously described, whereby the effective width of the track can be readily adjusted. The block 21^a is replaceable, this being readily effected by means of the bolts 22 and wing nut 23, to accommodate the width apart of the rails. The hopper is also adjustable, as will be explained more in detail, to accommodate labels of different widths and lengths.

Side boards 19 of the label receiving hopper are secured to upper adjusting bars 25 and lower adjusting bars 26 conveniently formed of wood. Each of the upper bars 25 is preferably formed in two sections so as not to obstruct a slot 27 which extends from the upper edge of the board 19 to within a short distance of the depending flange 18

thereof. The bars 25 and 26 are slidably mounted, at their ends, upon pipes 28 which extend through the inner flanges of the uprights 2 and are secured in position by set screws 29 threaded through the outer flanges of the uprights. Referring more particularly to Figures 5 and 7, caps 30 are secured upon the ends of the pipe and are suitably bored and threaded for reception of hand screws 31 which extend into the pipes. A pressure bar 32 is slidably mounted in slot 33 extending longitudinally of the pipe and is secured to the inner end of the screw 31 by a loose nut connection. This pressure bar 32 bears against the outer face of the adjusting bar. An expansion coil spring 34 is mounted across each of the pipes and is confined between the two adjusting bars mounted thereon, this spring tending to force the bars apart. The springs and the screws 31 cooperate to adjust the bars 25 and 26, and consequently the side boards 19 of the label hopper, toward and away from each other. This provides simple and effective means whereby the width of the label hopper can be readily varied in accordance with variation in the effective width of the can receiving track.

A pair of angle brackets 35 are mounted on the inner face of each of the side boards 19 of the hopper at opposite sides of the opening 27 therein. These brackets are secured in position by screws 36 which pass through the outer arms of the brackets and through slots 37 extending lengthwise of the boards 19, nuts 38 being threaded upon the inner ends of these screws. This provides simple and efficient means whereby the brackets 35 can be readily adjusted toward and away from each other to accommodate labels of different lengths.

A rod, preferably rectangular in shape, is suitably secured in the upper bar or member of frame 6 and extends through a suitable notch in the corresponding member of frame 7. This bar or rod is conveniently formed of wood. Rod 40 is provided with a longitudinally extending slot 41 which receives screws 42 extending through slot 43, these screws also extending through slots 44 in fingers 45, conveniently formed of sheet metal, disposed to project a short distance into the label receiving space of the hopper. This provides convenient means for supporting the fingers for adjustment toward and away from each other as well as toward and away from the hopper, and for effectively securing the fingers in adjustment. A pair of flanged sleeves 46 are suitably secured to each of the plates 20. Each of these sleeves receives a member 47 adjustably secured in the sleeve by a set screw 48. The inner end of this member is suitably ground to provide a blade or cutting element 49 the cutting edge of which is dis-

posed upwardly and is inclined upwardly and outwardly toward the side board 19.

The members 47, which may be considered as knives, coact with fingers 45 to provide point contact supporting means for a stack of labels 50 disposed within the hopper, the labels being supported at one end and the sides thereof by such supporting means. The side boards 19 and the brackets 35 are properly adjusted so that the labels of the stack 50 fit neatly into the hopper thus formed in such manner as to be effectively held against any undesirable looseness or play while preventing undesirable binding of the labels in the hopper.

A paste pan 51 (Figure 3) is suitably secured to block 21^a at the top thereof and extends inwardly a short distance beneath the stack of labels 50 at the other end thereof. A roller 52 is mounted in the pan 51 transversely thereof so as to dip into the paste, this roller providing a support for the outer or lap end of the bottom label of the stack and being in contact with the under face thereof for applying paste to the label. As will be noted more clearly from Figure 6, the upper edge of the inner end wall of paste pan 51 is beaded and serrated at 53 and serves to remove excess paste from the lap end of the label as it passes over this edge during withdrawal of the label from the bottom of the stack. The paste applying roller 52 is preferably driven in a suitable manner, but this is not essential. It is also preferred to drive this roller in a direction opposite to that in which the labels move when withdrawn from the stack. The means for accomplishing this desired rotation of the roller will be described later on.

I provide, at the back of the machine, suitable means for spotting the can with adhesive. A shaft 54_a is rotatably mounted in bearing blocks 54 slidable in the lower arms 55 of supporting brackets 56, the vertical arms 57 of which are adjustably secured to frames 6 and 7 by bolt and nut means, the bolts 58 passing through slots 59 in the frame and the slotted portion of each frame being preferably reduced somewhat in thickness. This provides convenient means whereby the shaft 54_a can be adjusted both vertically and horizontally with facility. A plate 60 is suspended from arm 54_a of the bracket by hangers 61 which rigidly secure the plate to the bracket. The hanger 61 associated with frame 7 has its lower end secured to plate 60 by a bolt 62 passing through a slot 63 in the plate. This permits adjustment of the hanger with the frame 7. A glue pot or pan 64 is supported by plate 60 in position to receive a plurality of spotting discs 65 suitably secured upon shaft 63, these discs dipping into glue in the pot 64. The shaft 63 is held against endwise movement by collars

66 secured thereon by set screws, these collars contacting the outer faces of the bearing blocks 64. These collars are thus adjustable upon the shaft to accommodate relative adjustment of the frames 6 and 7. The discs are disposed to spot cans passing along the track and past the spotting discs in a known manner. Either plain or serrated discs may be employed for spotting the cans, the serrated discs being preferable when it is desired to deposit a large amount of glue upon the cans.

Horizontal adjustment of the bearing blocks 64, and consequently the shaft 63, may be effected in a suitable manner as by means of adjusting screws 67 which thread through the outer ends of the arms 55 and have loose connection with the bearing blocks, jam nuts 68 being provided for securing these screws in adjustment. To hold the frames 6 and 7 against undesirable looseness or play, I provide a plurality of brace members 69 of elongated U-shape which extends across the front and back of the main frame and have their arms secured to the corner uprights 2 thereof, in a suitable manner, as by riveting. Pressure screws 70 are threaded through the members 69 and bear upon plates 71 carried by the frames 6 and 7. These screws are secured in adjustment by jam nuts 72 at opposite faces of the brace member 69. By turning the screws 70 in so as to bear firmly upon the plates 71, the frames 6 and 7 are held in position and against undesirable looseness.

A drive shaft 73 is rotatably supported upon the main frame 1, this shaft being mounted in a bearing block 74 bolted or otherwise suitably secured to a cross member 75 of the frame. A drive pulley 76 is suitably secured on one end of the shaft 73 and two pulleys 77 and 78 are secured on this shaft between pulley 76 and bearing block 74, the inner pulley 78 contacting the outer face of the bearing block. The other end of the shaft is mounted in a bearing block formed in two sections 79 carried by supporting arms 80 pivoted at their outer ends, at 81, in brackets 82 secured to the uprights 2 at the other side of the machine.

The sections 79 of the bearing block fit snugly about the shaft and are effectively secured together by bolts 83. A stop collar 83a is suitably secured upon the shaft 73 and contacts the outer face of the bearing block sections 79. The shaft 73 is thus held against endwise movement.

A wheel 83b is removably secured upon shaft 73 in a suitable manner, as by means of set screws 84. This wheel comprises a hub 85 and substantially U-shape spokes 86 which radiate from the hub and may be formed integral therewith. These spokes are provided, in the outer face of the right portions thereof, with spaced notches or re-

cesses in which are secured steel rims 87, in a suitable manner, by means of screws 88 (Figure 6). An inner rim 89 of soft elastic material, such as soft rubber, is secured to each of the rims 87 on the outer face thereof, and an outer rim 90, preferably of somewhat harder and tougher rubber than the inner rim 89, is secured to the outer face of each of the rims 89. Each of the rims 87, as well as the rims 89 and 90, are preferably in the form of a semi-circle to facilitate assembly and disassembly of the wheel. As will be noted more clearly from Figure 2, the side of the main frame 1 opposite to pulley 76 is unobstructed in the plane of the wheel, with the exception of the arms 80. When it is desired to remove the wheel the bolts 83 and the collar 83a are removed, after which the arms 80 are swung outwardly thus leaving this side of the frame open so that the wheel can be moved bodily off of the shaft by releasing the set screws 84 and can be replaced by another wheel, after which the arms 80 are swung into operative position and the bearing block members 79 are again secured together, the collar 83a being then replaced.

This provides convenient means whereby wheels of different diameters can be readily placed upon the shaft 73 as conditions require. As will be noted more clearly from Figure 4, the rims of the wheel are so spaced that the discs 65 of the spotting mechanism are in the planes of the spaces between these rims. This is advantageous as preventing contact between the wheel and the adhesive which has been applied to the cans. It will also be noted (Figure 2) that the spaces between the rim members of the wheel fall between the rails 12 of the track. By this arrangement I assure that the glue which has been applied to the cans will not be removed therefrom by contact with either the wheel or the track.

The wheel 83b is disposed within the track and concentric therewith. This wheel coacts with the track to feed the cans "C" along the same in a counterclockwise direction as considered in Figure 3, and to simultaneously cause rotation of the cans on their axes in a clockwise direction. The cans are delivered from the chute 16 to the track by suitable feeding means which acts to separate the cans in such manner as to dispose them about the track in predetermined spaced relation.

A shaft 92 is rotatably mounted in blocks 93 supported by brackets 94, secured to the two front uprights 2 of the main supporting frame 1. The blocks are secured to the brackets 94 for vertical adjustment by means of bolts 95 which screw into the blocks and pass through vertical slots 96 in flanges 97 of the brackets. To accommodate this vertical adjustment of the shaft the brackets

are provided with vertical slots 98 through which the shaft extends.

A feed regulating device in the form of a paddle or wheel member having four radial blades 99 is suitably secured on the shaft. The blades 99 are so spaced as to contact the cans "C" and deliver them from the chute 16 to the track in proper spaced relation. A discharge chute 100 extends across the chute 16 above the same. This discharge chute comprises side rails or strips 101 and bottom rods 102 which are secured to the frames 6 and 7 in the same manner as the rods and side rails of chute 16, so that the effective width of chute 100 is adjusted in accordance with adjustment of these frames in the same manner as the chute 16. Referring more particularly to Figure 3, each of the rods 102 is secured to the lower flange of an angle strip 103 which is suitably secured to frame 6 or 7. This angle strip is inclined downwardly and forwardly of the machine and has its inner end disposed to receive the cans as they pass from beneath the lower end of the rubber cover or pad 24 of block 21^a. The strips 103 constitute a continuation of chute 100 and act to direct the discharged cans into this chute. The discharge chute serves to direct the cans to the packing table in a known manner. It will be noted that the chutes 16 and 100 are both disposed at the front of the machine. This is advantageous as permitting the "shiners," that is, the cans which have not been labeled, to be discharged from the discharge chute adjacent the operator having charge of the supply of cans to the chute 16. This means for discharging the shiners from the chute 100 is known in the art and comprises, briefly, two contact fingers disposed to contact cans passing along the chute, these fingers being included in an electric circuit to which is connected suitable mechanism for discharging a can from chute 100.

When the cans are properly labeled, the labels, being of paper, serve to insulate the cans from the contact fingers. When an unlabeled can or shiner passes beneath the fingers the circuit is closed through the can and the mechanism referred to is actuated to remove the can from the discharge chute. This means for cutting out or removing shiners from the discharge chute of a labeling machine is well known in the art and need not be illustrated nor further described.

Pulley 76 is adapted to be connected to a suitable source of power, such as a pulley on the shaft of a motor, preferably an electric motor, by means of which the shaft 73 is rotated. The pulley 76 is shown as grooved for reception of a cord though any suitable drive may be employed. Pulley 77 is connected by a cord 104 to a pulley 105 secured on a stub shaft 106 rotatably mounted through a bearing block 107 bolted to a

bracket 108 which is riveted to the adjacent corner upright 2. A second pulley 109 is suitably secured to the inner face of pulley 105 and may be conveniently formed integrally therewith. A hub 110 extends from the inner face of pulley 109 and is secured to the stub shaft 106 by a set screw 111. Stub shaft 106 is disposed coaxially with a shaft 112 rotatably mounted through the side walls of the paste pan 51, the paste applying roller 52 being secured upon this shaft in a suitable manner. The adjacent ends of the shafts 106 and 112 are cut away and are disposed in overlapping relation, these ends being releasably secured together by a screw 113, or in any other suitable manner.

The paste applying roller 52 is thus rotated from the wheel in a counterclockwise direction as considered in Figure 3.

Pulley 109 is connected by a cord 114 to a pulley 115 secured on shaft 92 of the feed device. This device is driven in a counterclockwise direction and the arms 92 thereof serve to deliver the cans from chute 16 to the stack in proper spaced relation.

A cord 116 connects pulley 78 to a pulley 117 secured on shaft 53 of the spotting mechanism. This shaft is also driven in a counterclockwise direction as considered in Figure 1, and Figure 3, for applying the adhesive to the cans through the medium of the discs 65. I preferably provide tightening devices of known type for the respective cords or belts, such devices being designated by the reference numbers 118, 119, and 120.

In the operation of the machine, the cans are fed along the tracks by means of the wheel and travel above the same in a counterclockwise direction. The wheel and the track cooperate to rotate the cans, during such travel, in a clockwise direction on their axes. As these cans travel past the spotting mechanism, they are spotted with adhesive and then pass on to the label hopper. As the cans reach the hopper the adhesive thereon contacts the lowermost label of the stack adjacent the inner end thereof. This serves to withdraw the label from the hopper, this operation being facilitated by the point contact support of the fingers 45 and the knives 47, and the cutting edges of the edges 49 of the knives which act to slit the side edges of the label as it is withdrawn.

During continued travel and rotation of the can, the label is wrapped about the can body and the lap end of the label is drawn across the serrated end 53 of the paste pan 51 so as to remove excess paste therefrom. The can then passes on from beneath the hopper and enters between the wheel and the rubber pad 24 where the pressure upon the can is slightly increased by having the pads disposed inwardly a slight distance beyond the lower edges of flanges 18 of the side

boards 19 of the hopper. During travel of the can between pad 24 and the wheel the label is smoothed out and wrapped snugly around the can, and the lap end of the label, to which the paste has been applied, is pressed firmly into its proper lapping position. The labeled can is then delivered to the discharge chute 100 as previously described.

It will be noted that the glue pot 64 is disposed beyond the track and in such position that dirt and other foreign materials which may adhere to the cans and are removed therefrom during travel of the can above the track do not fall into the glue. This is advantageous as avoiding waste of glue and also as eliminating waste of time incurred in cleaning of the glue pot. In machines in which the glue pot is disposed beneath the pan during travel thereof, there is an appreciable waste of glue and time from this cause. It will also be noted that the label hopper is above the track and pressure is applied to the bottom label of the stack by the other labels superimposed thereon.

The upper end of the label hopper is unobstructed and the stack of labels in the hopper can be replenished so as to assure an adequate supply of labels at all times and also maintain a desirable pressure on the bottom label of the stack without in any way interfering with the operation of the machine. This provides simple and highly efficient means whereby the labeling of the cans can be carried on as a continuous operation, the labels being maintained under proper pressure and the supply of labels being replenished, as required, without removing this pressure or interrupting the labeling operation. These are important advantages in the labeling of cans and like articles since any loss of time in the labeling operation is a material consideration.

The cans are commonly kept in storage awaiting labeling. Being of sheet metal, these cans are hygroscopic, and are frequently coated with a film of moisture, when delivered to the labeling machine. This film is in the form of minute drops or globules which, unless broken up and destroyed, prevent satisfactory adherence of the adhesive to the can. I overcome this difficulty by providing a brush 121, supported by brackets 122 secured to track rail 12 of frame 7, this brush being so disposed that the bristles thereof contact cans passing along the track. The inherent resiliency of the bristles of the brush assures contact thereof with the cans while avoiding any interference with proper feed of the cans.

The brush acts to break up the film of moisture on the cans and to remove an appreciable portion of such moisture. This brush is preferably disposed beneath the rearward portion of the track, at an inclina-

tion downwardly and forwardly of the machine, as illustrated in Figure 3. The moisture or water removed from the cans flows down the bristles to the brush head and is discharged from the lower end thereof. A suitable receptacle may be placed beneath the brush to catch the drippings therefrom.

What I claim is:

1. In a labeling machine of the character described, a label receiving hopper, means in the hopper for supporting a stack of labels for withdrawal therefrom from the bottom of the stack, a paste pan beneath the hopper, a roller dipping into the pan and disposed to contact the lap end of the bottom label, said roller revolving oppositely to the direction of feed of the labels to the cans, means in advance of the hopper for spotting the cans with adhesive, and means for feeding the cans past the spotting means and beneath the hopper in position to cause the adhesive to contact the bottom label adjacent the other end thereof, the feeding means acting to rotate the cans and subject them to pressure radially thereof as they pass beneath and beyond the hopper for wrapping and smoothing the labels about the cans.

2. In a labeling machine of the character described, a wheel mounted to turn on a horizontal axis, a track concentric with the wheel and coacting therewith to feed cans along the track and rotate them, a hopper above the track having its lower end adjacent the track and adapted to support a stack of labels for withdrawal therefrom from the bottom of the stack, the upper end of the hopper being unobstructed and the labels being fed downwardly through the hopper by gravity, and means in advance of the hopper for applying adhesive to the cans.

3. In a labeling machine of the character described, a track, a hopper having its lower end open and adjacent the track, point contact supporting members extending inwardly of the hopper at one end and the sides thereof, certain of said members having cutting edges disposed for contact with the bottom label of a stack of labels supported within said hopper by the supporting members, means in advance of the hopper for applying adhesive to cans traveling along the track, and means cooperating with the track for feeding cans along the same and beneath the hopper and for rotating the cans as they pass beneath and beyond the hopper, the track being disposed to cause the adhesive on a can passing beneath the hopper to contact with the bottom label of the stack.

4. In a can labeling machine, including a wheel rotating on a horizontal axis and a stationary track for conveying cans, means for initially spotting the cans with adhesive, and means for supporting labels above the

rotatable wheel in position to contact the adhesived portions of the cans to be picked up and applied to the cans thereby.

5 5. In a can labeling machine, including a wheel rotating on a horizontal axis and a stationary track for conveying cans, means for initially spotting the cans with adhesive, means for supporting labels above the ro-
10 tatable wheel in position to contact the adhesived portions of the cans to be picked up and applied to the cans thereby, the labels overlapping marginally when applied, and means for applying adhesive to the marginal overlap.

15 6. In a can labeling machine, including a wheel rotating on a horizontal axis and a stationary track for conveying cans, means for initially spotting the cans with adhesive, means for supporting labels above the ro-
20 tatable wheel in position to contact the adhesived portions of the cans to be picked up and applied to the cans thereby, the labels overlapping marginally, means for applying adhesive to the marginal overlap, and means for pressing the overlapping mar-
25 gins firmly together upon the can.

7. In a can labeling machine, including a rotatable wheel and a stationary track for conveying cans, the combination of means
30 for supporting a stack of labels above said wheel, a paste pan and pasting roller adjacent one end of the label supporting means, said roller revolving in a direction opposing the direction of feed of the labels to the
35 cans, said label supporting means comprising label guides and adjustable label retaining fingers in said guides, and independent adjustable label retaining fingers without said guides, the labels being disposed with-
40 in the guides and resting upon both sets of retaining fingers and upon said pasting roller.

8. In a labeling machine, the combination of a track, a wheel rotatable adjacent said
45 track, and resilient means on the periphery of said wheel for engaging the article and feeding same along the track, said resilient means comprising an outer member of resilient rubber, and a member of tougher
50 rubber interposed between said outer member and the periphery of the wheel.

9. In a can labeling machine, including a rotatable wheel and a stationary metal track for conveying cans, said rotatable wheel
55 having a series of ridges on the periphery thereof, resilient means mounted upon the ridges comprising a tougher outer rubber and a softer rubber between the outer rubber and the wheel, said resilient ridges con-
60 veying and rotating the cans along the metal track in the labeling process.

In witness whereof, I hereunto subscribe my name this 17th day of April, 1929.

CHRISTIAN CARL KRONE.