May 5, 1936. J. MORRAL 2,039,825

LABELING MACHINE

Filed June 10, 1931 3 Sheets-Sheet 1

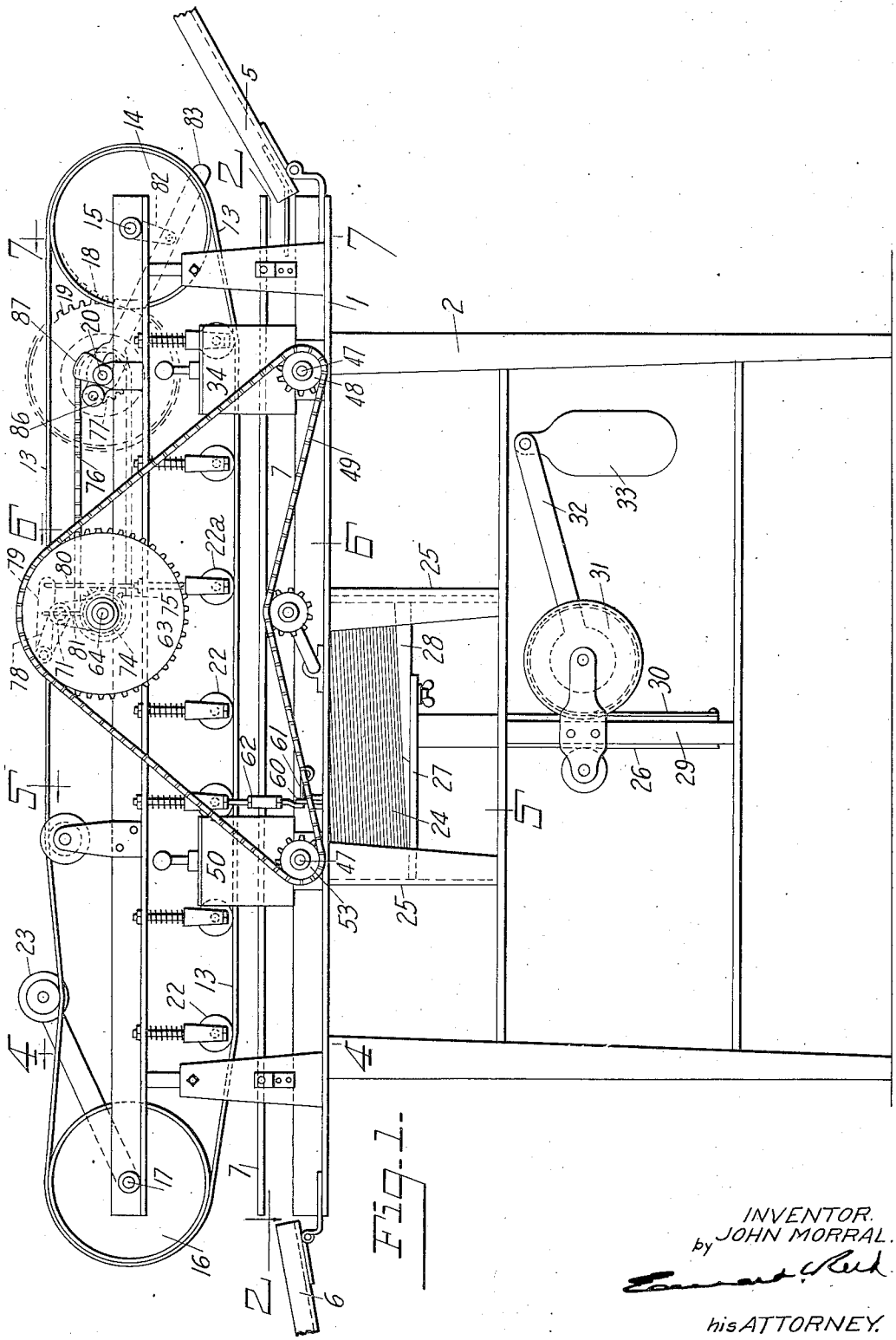


FIG. 1.

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Filed June 10, 1931 3 Sheets-Sheet 2

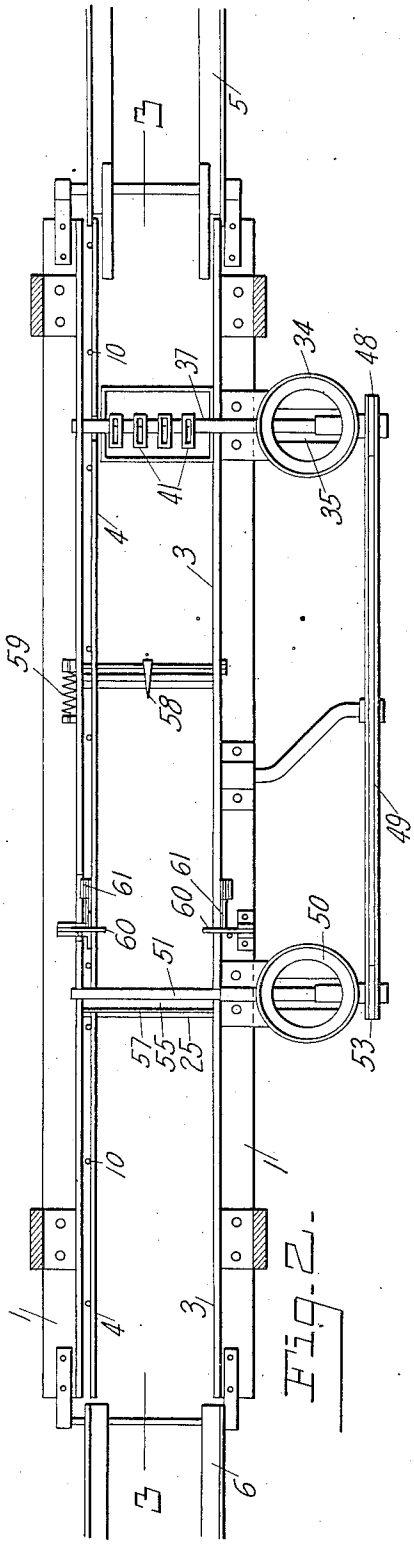


Fig. 2.

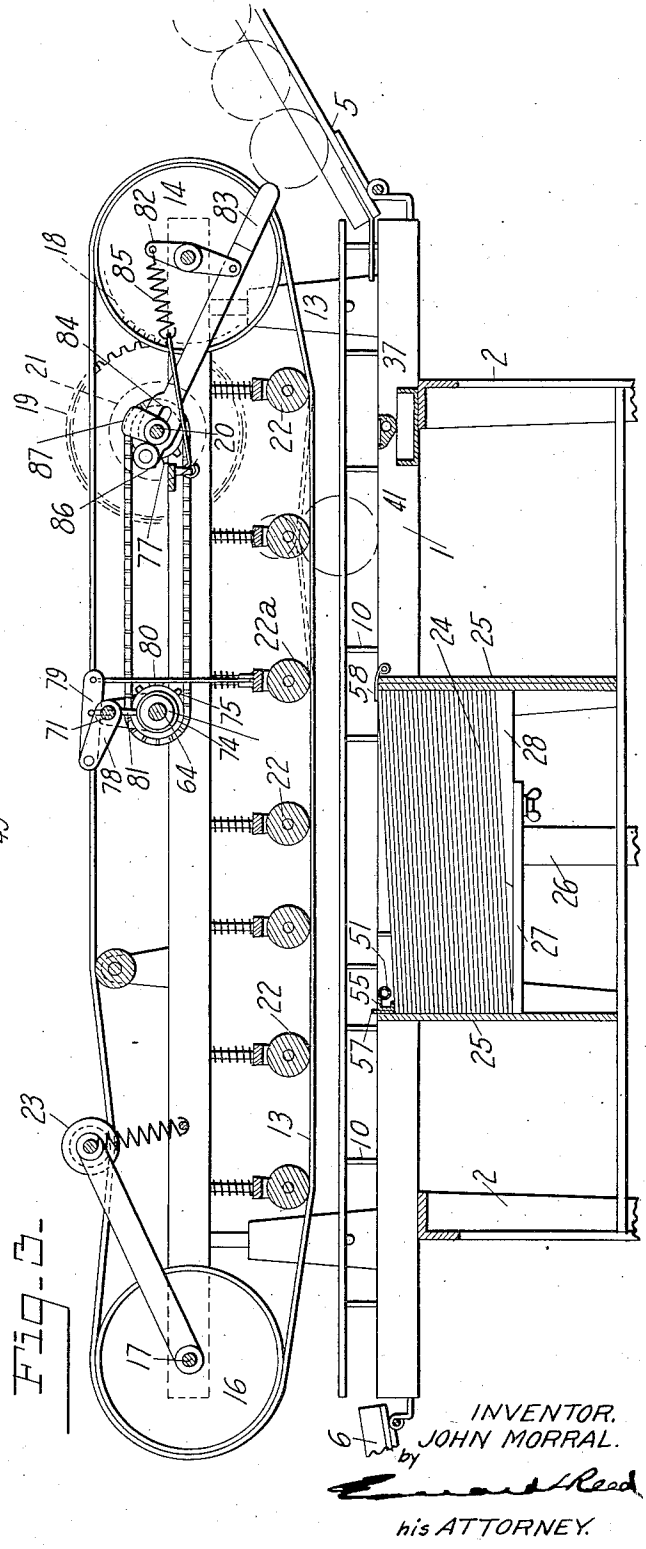


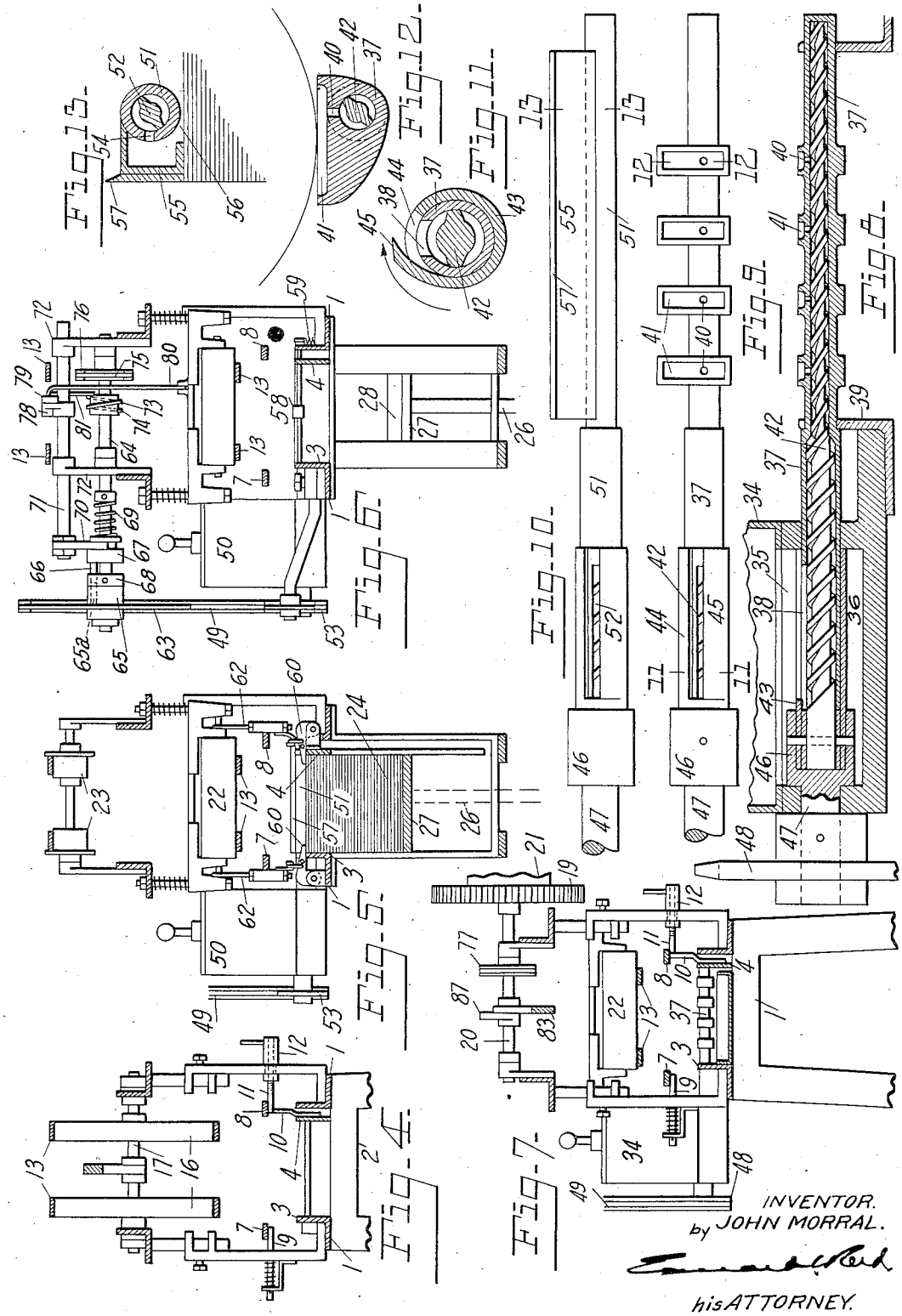
Fig. 3.

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LABELING MACHINE

Filed June 10, 1931 3 Sheets-Sheet 3



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Patented May 5, 1936 2,039,825

UNITED STATES PATENT OFFICE

2,039,825

LABELING MACHINE

John Morral, Marion, Ohio, assignor of one-half to William W. Morral and Samuel E. Morral, both of Morral, Ohio

Application June 10, 1931, Serial No. 543,401

41 Claims. (Cl. 216—58)

This invention relates to a labeling machine and is designed more particularly for use with cylindrical tin cans such as are commonly used for canning vegetables and fruits.

One object of the invention is to provide such a machine with improved means for applying paste to the can and to the label.

A further object of the invention is to provide such a machine with a force feed paste applying device which will be automatically controlled to maintain a proper supply of paste at all times in a position to be applied to the can or to the label.

A further object of the invention is to provide such a machine with means for intermittently operating the force feed paste applying device, under the control of the cans passing through the machine.

A further object of the invention is to provide such a machine with means for holding the second label of a pile of labels against movement when the uppermost label is withdrawn from beneath the paste applying device.

A further object of the invention is to provide such a machine with means for causing the cans to be delivered thereto one at a time and at properly spaced intervals.

A further object of the invention is to provide such a machine with a runway which is adjustable to accommodate the same to cans of different lengths.

Other objects of the invention will appear as the device is described in detail.

In the accompanying drawings Fig. 1 is a side elevation of a labeling machine embodying my invention; Fig. 2 is a horizontal sectional view taken on the line 2—2 of Fig. 1; Fig. 3 is a longitudinal sectional view taken on the line 3—3 of Fig. 2; Fig. 4 is a transverse section taken on the line 4—4 of Fig. 1; Fig. 5 is a transverse section taken on the line 5—5 of Fig. 1; Fig. 6 is a transverse section taken on the line 6—6 of Fig. 1; Fig. 7 is a transverse section taken on the line 7—7 of Fig. 1; Fig. 8 is a sectional detail view of the device for applying paste to the cans; Fig. 9 is a top plan view of such a device; Fig. 10 is a side elevation of the device for applying paste to the label; Fig. 11 is a section taken on the line 11—11 of Fig. 9; Fig. 12 is a section taken on the line 12—12 of Fig. 9; and Fig. 13 is a section taken on the line 13—13 of Fig. 10.

In these drawings I have illustrated one embodiment of my machine and have shown the same as comprising a main frame 1 supported on legs 2 and provided with a longitudinally extending runway for the cans, which as here shown comprises two parallel track members 3 and 4. The cans to be labeled are delivered to the runways through an inclined chute 5 and are discharged therefrom over a second inclined chute 6. In order to properly position the cans on the runway guide bars 7 and 8 are arranged above the runway and spaced laterally from the respective track members 3 and 4 such distances as will enable them to receive a can between them and to hold the same against endwise movement on the runway. The guide bar 7 is here shown as yieldably supported by spring pressed arms 9 so that it will push the cans against the guide bar 8 under a light pressure, which will not interfere with the movement of the cans along the runway. If desired, the track member 4 may be adjustable toward and from the track member 3 and the guide bar 8 may be adjustable toward and from the guide bar 7, to accommodate the runway to cans of different lengths. As here shown, the track member 4 and the guide bar 8 are connected one to the other by standards 10 and connected with these standards are adjusting screws 11 which are threaded into sleeves or nuts 12 rotatably mounted on the main frame and provided with actuating handles. I have here shown but one of these adjusting nuts but it will be understood that as many of them will be provided as is necessary to properly adjust the members of the runway and retain the latter in their proper adjusted positions.

The cans are moved along the runway by means of an endless conveyor which, in the present instance comprises two belts 13 which extend about drums 14 mounted on the shaft 15 at the forward end of the machine and about drums 16 mounted on the shaft 17 at the rear end of the machine. The conveyor shaft 15 has secured thereto a gear 18 which meshes with a gear 19 on a driving shaft 20 which may be driven from any suitable source of power. In the present instance, a belt pulley 21 is connected with the shaft 20 on the outer side of the gear 19. The lower stretch of the belt is spaced such a distance from the runways that the cans will pass beneath the same and will be rolled along the runways by the action of the belt. Preferably a plurality of spring pressed pressure rollers 22 are arranged above this lower stretch of the belt to hold the same in firm contact with the cans. If desired, a belt tightening device 23 may be applied to the upper stretch of the belt or at any other suitable point. Mounted beneath the runway and between the two track members is a pile of labels 24 which are supported in a

suitable structure which, in the present instance, comprises vertical guideways **25** and a plunger **26** upon which the labels rest. The head of this plunger is formed in two parts **27** and **28** which are adjustable with relation one to the other to accommodate the same to labels of different length and the part **28** lies above the part **27** and its upper surface slopes toward the same so that the labels are supported in a slightly inclined position with their forward ends higher than their rear ends. An upward thrust is applied to the plunger to move the pile of labels upwardly as labels are successively removed from the upper end thereof. As here shown, the plunger is mounted between vertical guides **29** and has connected with the lower portion thereof a strap **30** which extends upwardly and about a pulley **31** rotatably mounted on the guides **29**, and rigidly connected with this pulley is an arm **32** which supports a weight **33**, which thus tends constantly to impart upward movement to the plunger and to the pile of labels. The upward movement of the pile of labels is limited by means which will be hereinafter described.

As a can passes along the runway paste is applied to the surface thereof and as the can rolls along the runway over the pile of labels the uppermost label, being supported in the path of the can, will adhere to the paste on the can and will be wrapped about the can as it continues its movement. Paste is applied to the rear end of the uppermost label on the pile and this label is removed from the pile by the action of the can and its pasted end overlaps and is secured to that end of the label which first adhered to the can. The device for applying paste to the can as it approaches the pile of labels comprises a receptacle **34** to contain a supply of paste and having in its bottom an opening or slot **35** through which the paste is discharged by gravity, or otherwise, into a housing **36** arranged below and forming in effect a part of the paste receptacle. Mounted within this housing is a tube **37** having in its upper side a slot **38**, see Figs. 9 and 11. This tube extends from the housing **36** transversely to the runway where the laterally extending portion thereof is supported in suitable frame members **39**. This portion of the tube is provided in its upper side with a series of discharge openings **40** each of which leads into a paste receptacle or cup **41** carried by the tube, having its upper side open and arranged close to the plane of the upper edge of the track members, so that a can rolling along those track members will come in contact with paste in the cups **41**. Means are provided for forcing the paste from the paste receptacle through the tube to the cups **41** and for maintaining those cups full at all times. Preferably this forcing means is in the form of a screw **42** rotatably mounted in the tube **37**. The paste being of a relatively stiff semi-fluid character will not always flow positively through the slot **38** in the tube into proper engagement with the screw. I have therefore provided means for forcing the paste into contact with the screw. For this purpose I have mounted about the receiving end of the tube a sleeve **43** having a slot **44** arranged to register with the inlet opening or slot **38** in the tube once upon each rotation of the sleeve. The sleeve at the rear side of the slot extends outwardly, as shown at **45**, to provide a cutting edge which will remove a predetermined quantity of paste from the mass of paste in the housing and will, by its continued forward movement, force this paste through the slot **38** in the tube and into contact with the screw. The sleeve **43** and the screw **42** are rotated in unison about the stationary tube and, as here shown, both of these members extend into a socket **46** in a stud shaft **47**, which is journaled in the housing **36**, and are rigidly secured thereto. Secured at the outer end of the stud shaft **47** is a sprocket wheel **48** which is connected by a sprocket chain **49** with suitable actuating mechanism. In the present construction the inner portion of the tube **37** is of less diameter than the outer portion and the screw likewise has its inner and outer portions of different diameters. By means of this construction the pressure exerted on the paste in the smaller portion of the tube will be sufficient to distribute the same equally throughout the tube and to cause uniform portions thereof to be delivered through each of the discharge openings **40**.

The device for applying paste to the rear portion of the upper surface of the label is similar to that just described but the receptacle which receives the paste and applies it to the label is different from that employed for applying the paste to the can. A separate paste receptacle **50** is provided for the labels and a tube **51** extends from this receptacle across the pile of labels adjacent to the rear end thereof. (Figs. 10 and 13.) A screw **52** is mounted in the tube and is rotated by a sprocket wheel **53** which, in the present arrangement, is driven by the same sprocket chain **49**, which actuates the sprocket wheel **48**. The tube **51** has in its lateral wall a series of discharge openings **54** through which the paste is discharged into a paste receptacle **55**. As here shown, this paste receptacle comprises a channel shaped structure, closed at its ends, and the forward side of the structure is closed by the tube **51**, which thus forms a part of the receptacle. The lower wall of the channel is of such width that it is spaced a short distance from the tube, thus providing a slot **56** in that surface of the receptacle which is adjacent to the labels and through which the paste passes into engagement with the label. This receptacle is in constant engagement with the uppermost label and thus serves not only to apply paste to that label but to hold the pile of labels against upward movement. As a can passes over the pile of labels and rolls the uppermost label about itself it will be carried past the paste applying device and the label will be pulled forwardly from beneath the receptacle, thus dragging the entire rear end portion of the label beneath the slot **56** and causing paste to be applied thereto. Preferably the tube **51** has its lower surface slightly higher than the lower surface of the paste receptacle **55** so as to provide a sufficient clearance between the tube and the label to prevent too much paste being scraped off of the label by the tube as the label is withdrawn, thus insuring the retention by the label of the proper amount of paste to secure the same to the can. To facilitate the withdrawal of the label from beneath the receptacle I have provided means for imparting to the can a quick upward movement just as it passes over the paste applying device, which will quickly pull the end of the label from beneath the receptacle. As here shown, a plate or bar **57** is arranged at the rear side of the receptacle and extends a short distance above the same into the path of the can so that the can will be elevated thereby. The forward edge of the upper-

most label is retained in place by a light finger 58 which is acted upon by a spring 59 which normally retains the same in contact with the upper label but permits the same to yield and release the label when the latter is lifted by the can. To prevent the next lower label from being displaced when the uppermost label is pulled from beneath the paste applying device I have arranged at each side of the pile of labels a dog 60 the inner end of which overlaps the adjacent side of the pile and is pressed into engagement therewith by a spring 61. These dogs are arranged a short distance in advance of the paste applying device and are automatically actuated by the action of the can to release the uppermost label and engage the next lower label just before the uppermost label is withdrawn. For this purpose I have connected the dogs with one of the yieldable pressure rollers 22, which is arranged directly above the same, by means of links 62. The can will lift this pressure roller and thus move the dogs to inoperative positions but will pass out of engagement with the pressure roller after the label has been moved past the dogs but before it has been withdrawn from beneath the paste applying device, thus permitting the dogs to again engage the pile of labels.

The force feed paste applying devices are preferably operated intermittently and are so controlled as to maintain in the paste receptacles 41 and 55 a proper amount of paste at all times. In the present organization, means are provided for operatively connecting the screws with the driving mechanism for the conveyor and this connection is so controlled by the cans passing along the runway that the screws will be actuated to deliver a predetermined amount of paste to the receptacles upon the passage of each can. The sprocket chain 49 which actuates the two screws is extended about a sprocket wheel 63 which is rotatably mounted on a shaft 64 and is adapted to be connected with that shaft by means of a clutch. As here shown, the hub 65 of the sprocket wheel 63 constitutes one of the clutch members and is provided with a longitudinal opening 65a adapted to receive a pin 66 carried by a collar 67 slidably mounted on the shaft 64, the pin and collar constituting the second clutch member. The pin is slidably supported in a collar 68 rigidly secured to the shaft 64 adjacent to the hub. A spring 69 acts on the slidable clutch member 67 to move the pin 66 into the opening in the hub 65 but this movable clutch member is normally held in an inoperative position and is released by can controlled means to cause a brief operation of the paste feeding screws upon the passage of each can. As here shown, the collar 67 is provided with a circumferential groove to receive a shifting yoke 70 which is carried by a shaft or rod 71 slidably mounted in bearings 72 on the main frame and parallel with the shaft 64. Rigidly secured to the shaft 64 is a rotatable member or cam 73 having a circumferential spiral rib 74. The shaft 64 is provided with a sprocket wheel 75 which is connected by a sprocket chain 76 with a sprocket wheel 77 on the main drive shaft 20. Thus the shaft 64 and cam 73 rotate continuously when the machine is in operation. Mounted on the rod 71 is a rearwardly extending arm 78 on which is pivotally mounted a lever 79 the forward end of which is connected by a rod 80 with one of the yieldable pressure rollers, here designated as 22a. Secured to the forwardly extending lever 79 is a part or finger 81 which normally engages that side of the cam 73 opposite the clutch and which is so arranged with relation to the clutch that when in engagement with the cam it will hold the movable clutch member in its inoperative position. When a can passes beneath the pressure roller 22a the lever 79 will be actuated and the finger 81 lifted out of engagement with the cam, thus releasing the rod 71 for movement by the spring 69, enabling the clutch pin 66 to enter the opening in the hub or clutch member 65 and establishing driving connection between the driving mechanism and the paste feeding screws. This movement of the rod 71 carries the pin 81 to a position on the opposite side of the cam 73 and when the can passes out from beneath the pressure roller 22a this pin will move downwardly into operative relation to the cam and will be engaged by the circumferential spiral 74 and moved to the right hand side of the cam, thus retracting the rod 71 and separating the clutch members. The amount of movement imparted to the paste feeding screws is sufficient to replace in the paste applying devices the amount of paste which has been used by the preceding can and label. This movement may be regulated by varying the speed at which the shaft 64 is driven or by varying the length of the pin 66 so that a greater or lesser movement of the rod 71 will be required to withdraw the same.

Means are also provided for delivering the can to the runways one at a time and in properly spaced relation. For this purpose I have provided a movable stop arranged normally in the path of the cans on the chute 5 and operated periodically to release the foremost can and then engage the next following can. As here shown, a crank arm 82 is pivotally mounted on the drum shaft 15 and a stop bar 83 is supported by the lower end of that crank arm and has its rear end slotted at 84 to embrace the driving shaft 20, on which the stop bar is guided for longitudinal movement. A spring 85 acts on the crank arm 82 to hold the forward end of the bar normally in the path of the foremost can on the chute 5. The rear end of the stop bar is provided with a roller 86 arranged to be engaged by a cam 87 rigidly secured to the drive shaft. Thus upon each rotation of the drive shaft the stop bar will be withdrawn from the path of the foremost can and will be then released for movement into the path of the succeeding can.

While I have shown and described one embodiment of my invention I wish it to be understood that I do not desire to be limited to the details thereof as various modifications may occur to a person skilled in the art.

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

1. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, a paste applying device comprising a paste cup arranged in the path of the can on said runway, a paste receptacle, a tube connecting said paste receptacle with said cup, means operating in said tube for forcing paste from said receptacle to said cup, and means for connecting said forcing means with said driving mechanism.

2. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, a paste applying device comprising a tube arranged beneath said runway, and having cup-shaped portions adjacent to the path

of a can on said runway and communicating with the interior of said tube, said tube extending laterally from said runway and having an opening in the outer portion thereof, a paste receptacle communicating with the opening in said tube, a screw rotatably mounted in said tube, and means for operatively connecting said screw with said driving mechanism.

3. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, a paste applying device comprising a tube arranged beneath said runway and having cup-shaped portions adjacent to the path of a can on said runway, and communicating with the interior of said tube, said tube extending laterally from said runway and having an opening in the outer portion thereof, a paste receptacle communicating with the opening in said tube, a screw rotatably mounted in said tube, means for operatively connecting said screw with said driving mechanism, and means controlled by a can on said runway to control said connecting means.

4. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, paste applying means arranged adjacent to said runway and having an operable device to force paste through the same, means including a clutch for operatively connecting said device with said driving mechanism, and means controlled by a can on said runway for actuating said clutch.

5. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, paste applying means arranged adjacent to said runway and having an operable device to force paste through the same, means including cooperating clutch members for operatively connecting said device with said driving mechanism, a spring to move one of said clutch members into operative engagement with the other clutch member, and means controlled by a can on said runway to normally hold said movable clutch member in its inoperative position, to release said clutch member for movement by said spring and to then return said clutch member to its inoperative position.

6. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, paste applying means arranged adjacent to said runway and having an operable device to force paste through the same, means including cooperating clutch members for operatively connecting said device with said driving mechanism, a spring to move one of said clutch members into operative engagement with the other clutch member, a rotatable member having constant operative connection with said driving mechanism, a part connected with said movable clutch member and normally engaging one side of said rotatable member to hold said clutch member in its inoperative position, means controlled by a can on said runway to move said part out of engagement with said rotatable member and permit said clutch member and said part to be moved by said spring and to then move said part into operative relation to the other side of said rotatable member, and means carried by said rotatable member to move said part to the first mentioned side of said rotatable member and thereby move said clutch to its inoperative position.

7. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, paste applying means arranged adjacent to said runway and having an operable device to force paste through the same, means including cooperating clutch members for operatively connecting said operable device with said driving mechanism, a spring to move one of said clutch members into operative engagement with the other clutch member, a rotatable member having constant operative connection with said driving mechanism and having a circumferential spiral rib, a part connected with said clutch member for movement therewith and normally engaging one side of said rotatable member to hold said clutch member in its inoperative position, and a device arranged to be actuated by a can on said runway to move said part out of engagement with said rotatable member and permit the same to move with said clutch member under the influence of said spring and to then cause said part to move into operative relation to said spiral rib at the other side of said rotatable member when the can has passed said device.

8. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, paste applying means arranged adjacent to said runway and having an operable device to force paste through said opening, means for operatively connecting said device with said driving means, said connecting means including a clutch member having a longitudinal opening, and a second clutch member having a pin movable into and out of the opening in the first mentioned clutch member, a spring acting on said second clutch member to move said pin into said opening, and means controlled by a can on said runway to hold said second clutch member normally in its inoperative position, to release the same for movement by said spring and to then move the same to its inoperative position.

9. In a labeling machine, a paste applying device comprising a paste receptacle, a tube having an inlet communicating with said receptacle and having a discharge opening, a screw rotatably mounted in said tube, and means for rotating said screw.

10. In a labeling machine, a paste applying device comprising a paste receptacle having an opening in the lower portion thereof, a tube having an inlet adjacent to said opening in said receptacle and having a discharge opening, a screw rotatably mounted in said tube, means for actuating said screw, and means connected with said screw for forcing paste through said inlet into engagement with said screw.

11. In a labeling machine, a paste applying device comprising a paste receptacle, a tube having an inlet communicating with said receptacle and having a discharge opening, a screw rotatably mounted in said tube, means for rotating said screw, a device rotatable about said tube and having means for delivering a predetermined quantity of paste through said inlet upon each rotation of said device.

12. In a labeling machine, a paste receptacle, a tube having an inlet in the side wall thereof communicating with said receptacle and having a discharge opening, a screw rotatably mounted in said tube, a sleeve rotatably mounted on said tube, having an opening arranged to register with said inlet once upon each rotation of said sleeve and having a part to separate a quantity of paste from the mass of paste and force the same through said inlet while the latter is in register with the opening in said sleeve, and means for rotating said screw and said sleeve.

13. In a labeling machine, a paste tube having

portions of different diameter, the larger portion of said tube having an inlet to receive paste from a source of supply, and the smaller portion of said tube having a plurality of discharge openings spaced apart lengthwise thereof, a screw having parts of different diameters mounted in the respective portions of said tube, and means for rotating said screw.

14. In a labeling machine, a tube having an inlet to communicate with a source of supply for paste and having a discharge opening, a paste applying receptacle communicating with said discharge opening, a screw rotatably mounted in said tube, and means for intermittently actuating said screw to force predetermined quantities of paste through said tube into said paste applying receptacle.

15. In a labeling machine, a tube having an inlet to communicate with a source of supply for paste and having a discharge opening, a paste applying cup carried by said tube, communicating with said discharge opening and having an open top, a screw rotatably mounted in said tube, and means for actuating said screw.

16. In a labeling machine, a support for a pile of labels, an elongated paste receptacle arranged above said pile, engaging the uppermost label and having a slot in the lower wall thereof, said receptacle comprising a tube which forms one wall thereof and communicates therewith, said tube having an inlet connected with a source of paste supply, and a device operating in said tube to force paste from said source of supply into said paste receptacle.

17. In a labeling machine, a runway for cans, means for moving cans along said runway, means for supporting a pile of labels beneath said runway with the forward edge of the uppermost label in a position to be engaged by a can on said runway, means for applying paste to the can before it engages said label, a paste applying device supported below said runway and engaging the rear portion of said uppermost label, and a bar mounted adjacent to and extending above said paste applying device to impart upward movement to the can as it passes the same.

18. In a labeling machine, a runway for cans, means for moving cans along said runway, means for supporting a pile of labels beneath said runway with the uppermost label in a position to be engaged by a can on said runway, means for applying paste to the can before it engages said label, a paste applying device engaging the rear portion of said label, dogs overlying and yieldably engaging the lateral portions of said uppermost label at points in advance of said paste applying device, and means controlled by a can on said runway to withdraw said dogs and release said uppermost label.

19. In a labeling machine, a runway for cans, means for moving cans along said runway, means for supporting a pile of labels beneath said runway with the uppermost label in a position to be engaged by a can on said runway, means for applying paste to the can before it engages said label, a paste applying device engaging the rear portion of said label, dogs pivotally mounted at the respective sides of said pile of labels and extending above the same, springs to press said dogs against the uppermost label, and a device arranged above said pile of labels to be actuated by a can moving over said pile to move said dogs out of engagement with said label.

20. In a labeling machine, a support for a pile of labels, an elongated paste receptacle arranged above said pile, engaging the uppermost label and having a slot in the lower wall thereof, said receptacle comprising a tube which forms one wall thereof and communicates therewith, said tube having an inlet connected with a source of paste supply, and a device operating in said tube to force paste from said source of supply into said paste receptacle, said tube having its lower surface spaced from the uppermost label to provide a slight clearance between the same and said label.

21. In a labeling machine, a paste applying mechanism comprising a tubular member adapted to be connected with a source of supply for paste and having a discharge opening, a device movably mounted in said tubular member to move paste through the same to said discharge opening, and means to actuate said movable device.

22. In a labeling machine, a paste applying mechanism comprising a paste receptacle, a tubular member communicating with said receptacle and having a discharge opening in one side thereof, an operable device mounted in said paste receptacle and said tubular member to convey paste from said receptacle to said discharge opening, and means to operate said operable device.

23. In a labeling machine comprising a runway for cans, and means for supporting a pile of labels beneath said runway, a paste applying device comprising a tubular member having an outlet and arranged to deliver paste to the uppermost label of a pile of labels on said supporting means, and positively actuated means arranged within said tubular member for forcing paste through the same to said outlet.

24. In a labeling machine comprising a runway for cans, and means for supporting a pile of labels beneath said runway, a tube arranged adjacent to the uppermost label of a pile of labels on said supporting means and having a longitudinally arranged series of outlets to deliver paste to said uppermost label, a paste receptacle communicating with the inlet end of said tube, a feeding device movably mounted in said tube to move paste through the same to said outlets, and means for positively actuating said feeding device.

25. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, a paste applying device having a part adjacent to said runway and provided with an outlet, and means operating within said part of said device and actuated by said driving mechanism to deliver paste under pressure to said outlet.

26. In a labeling machine, a runway, means for moving a can along said runway, a paste applying tube extending transversely to said runway and having a series of outlets arranged lengthwise thereof, a feeding device operable within said tube to deliver paste to the several outlets, and means for actuating said can moving means and said feeding device.

27. In a labeling machine having a runway, a paste applying tube extending transversely to said runway, connected with a source of paste supply and having an outlet, a device movable in said tube to feed paste to said outlet, and means for actuating said device.

28. In a labeling machine, a runway for cans, paste applying means having a part extending transversely to said runway and provided with an outlet and having a device operating in said part to force paste through the same to said outlet,

and means for intermittently operating said device in accordance with the movement of the cans along said runway to cause predetermined quantities of paste to be delivered to said outlet.

29. In a labeling machine, a runway for cans, paste applying means having a part extending transversely to said runway and provided with a plurality of outlets, a feeding device operable within said part to deliver substantially equal quantities of paste to the several outlets, and means controlled by the cans on said runway for actuating said feeding means.

30. In a labeling machine, a support for a pile of labels, an elongated paste receptacle arranged above said support, having its lower surface engaging the uppermost label of a pile of labels on said support and provided with a discharge opening, a paste supply tube communicating with said receptacle at a plurality of points between the ends thereof and having an inlet arranged beyond one end of said receptacle and communicating with a source of paste supply, and means operating in said tube to force paste therefrom into said receptacle.

31. In a labeling machine, a paste applying mechanism comprising a paste receptacle, a tubular member communicating with said paste receptacle and having a longitudinal series of discharge openings, an operable device mounted in said tubular member to positively move paste through the same and arranged to deliver paste to said discharge opening in substantially equal quantities, and means for operating said operable device.

32. In a labeling machine, a runway, a chute for delivering cans to said runway, means for moving cans along said runway, driving mechanism for said means, a rock arm mounted above said chute, a longitudinally movable stop bar mounted between its ends on said rock arm, a spring acting on said stop bar to hold one end thereof normally in a position to engage the lowermost can on said chute near the top of said can, and a cam actuated by said driving mechanism and acting on the other end of said stop bar to impart longitudinal movement thereto and move the first mentioned end thereof out of the path of said lowermost can and to release said stop bar for movement by said spring toward its initial position before said can has completely passed the lower end of said stop bar.

33. In a labeling machine, a runway over which the cans move, a paste applying device having a part arranged in the path of the cans on said runway, said part having an opening to apply paste to the cans as they move over the same, power driven operating mechanism, means actuated by said operating mechanism to deliver paste to said opening, and means controlled by the cans on said runway to control the operation of said paste delivering means by said operating mechanism.

34. In a labeling machine, a runway, means for moving a can along said runway, driving mechanism for said means, a paste applying device comprising a paste cup arranged in the path of the cans on said runway to apply paste to the cans as they move over the same, means actuated by said driving mechanism to deliver paste to said cup, and means controlled by the cans on said runway to control the operation of said delivery means by said driving mechanism.

35. In a labeling machine, a runway, means for moving cans along said runway, driving mechanism for said means, a paste applying device comprising a part arranged in the path of the cans on said runway, and having an opening to apply paste to said cans as they move over the same, an operable part to force paste through said opening, means for operatively connecting said operable part with said driving mechanism, and means controlled by the cans on said runway to control the operation of said operable part by said driving mechanism.

36. In a labeling machine, a support for a pile of labels, a stationary paste applying device arranged above said label support and comprising a paste receptacle adapted to be engaged by the uppermost label of a pile of labels on said support and having a slot to deliver paste to said uppermost label, a conduit mounted in fixed relation to and extending lengthwise of said receptacle and communicating with said receptacle and with a source of paste supply, and means operating in said conduit to feed paste therefrom to said receptacle.

37. In a labeling machine, a paste applying device comprising a paste receptacle, a tube having a portion arranged in said receptacle and provided with an inlet, said tube having another portion projecting beyond said receptacle and provided with a discharge opening, a feeding element movably mounted in said tube to force paste through said discharge opening, a device mounted in said paste receptacle for rotation about said tube and having means to detach a portion of the paste from the mass of paste in said receptacle and to deliver the detached portion through said inlet to said tube, and means for actuating said feeding element and said rotatable device.

38. In a labeling machine, a paste applying device comprising a paste receptacle, a tube having a portion arranged in said receptacle and provided with an inlet, said tube having another portion projecting beyond said receptacle and provided with a discharge opening, a rotatable feeding device mounted in said tube to force paste through said discharge opening, a sleeve mounted in said paste receptacle for rotation about the inlet portion of said tube and having an opening to register with the inlet for said tube and also having a part to separate a portion of the paste from the mass of paste in said receptacle and deliver said portion through the opening in said sleeve and through said inlet to said tube, and means for rotating said feeding element and said sleeve.

39. In a labeling machine, a paste applying device comprising a tube having an inlet adjacent to one end thereof to connect the same with a source of paste supply and having adjacent to the other end thereof a portion of reduced cross sectional area provided with a discharge opening, a feeding element movably mounted in said tube to move the paste lengthwise thereof and force the same through said discharge opening, and means for operating said feeding element.

40. In a labeling machine, a paste applying device comprising a tube having an inlet adjacent to one end thereof to connect the same with a source of paste supply and having adjacent to the other end thereof a portion of reduced cross sectional area provided with a discharge opening, a rotatable feeding element having parts of different diameters arranged in the respective portions of said tube to move the paste lengthwise thereof and force the same through said discharge opening, and means for rotating said feeding element.

41. In a labeling machine, a paste applying device comprising a tube having an inlet adjacent

to one end thereof to connect the same with a source of paste supply and having adjacent to the other end thereof a portion of reduced cross sectional area provided with a discharge opening, a rotatable feeding element having parts of different diameters arranged in the respective portions of said tube to move the paste lengthwise thereof and force the same through said discharge opening, means for rotating said feeding element, and a device rotatable with said feeding element to deliver paste through said inlet to said tube.

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