

(No Model.)

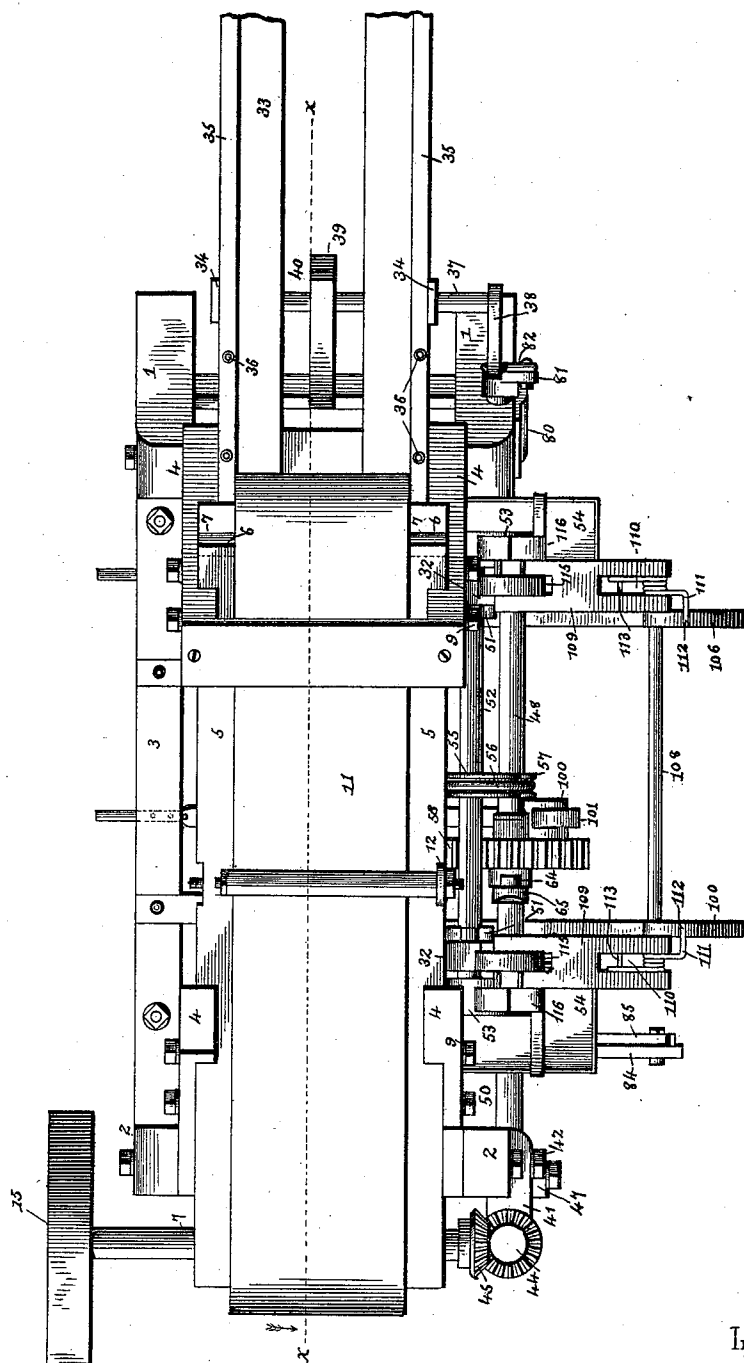
5 Sheets—Sheet 1.

J. F. WILLIAMS.
MACHINE FOR APPLYING LABELS TO CANS.

No. 478,298.

Patented July 5, 1892.

Fig. 1.



Witnesses:

John F. Williams
W. S. Sewall

Inventor

John F. Williams,

By *his* Attorneys,

C. A. Snow & Co.

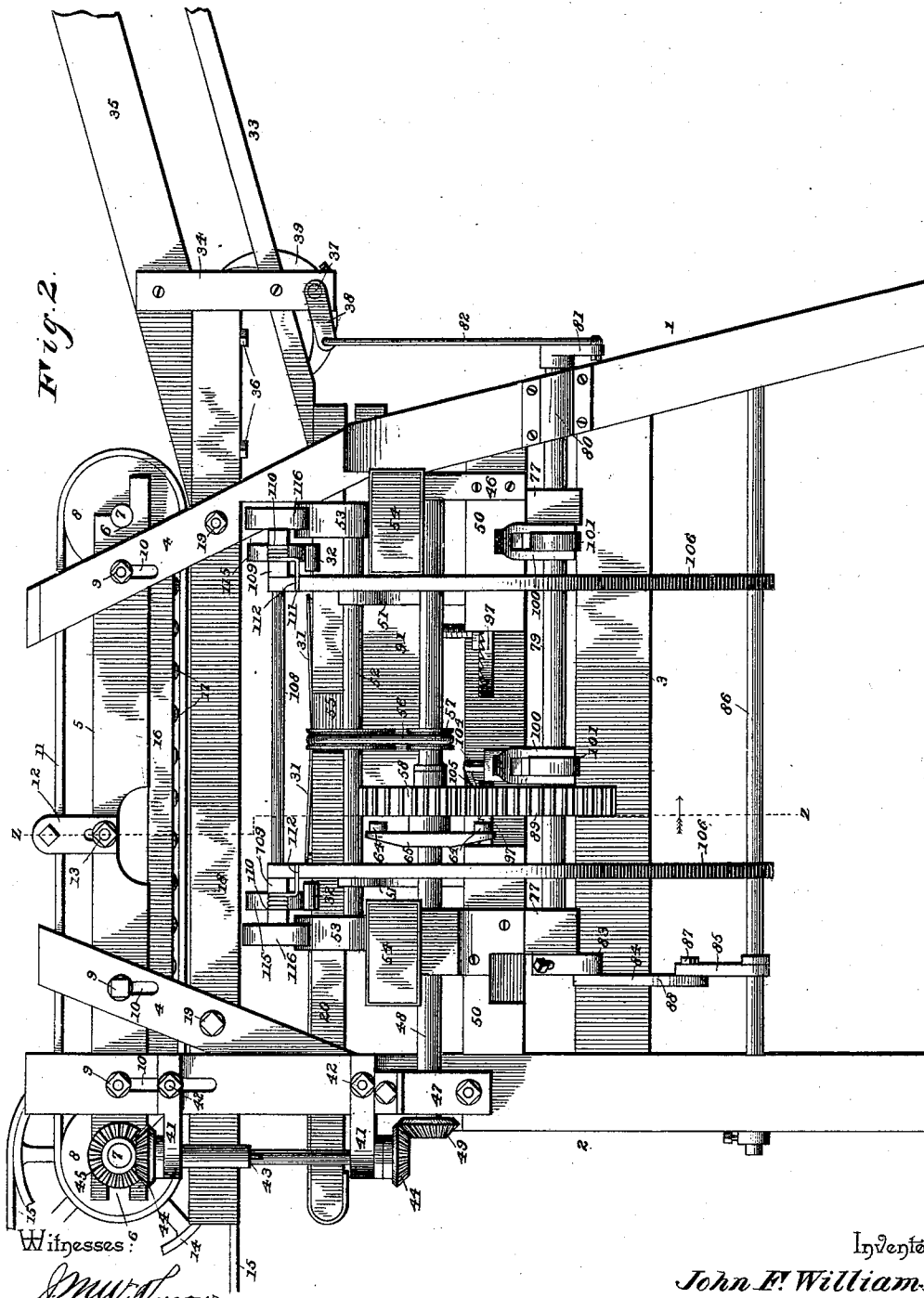
(No Model.)

5 Sheets—Sheet 2.

J. F. WILLIAMS.
MACHINE FOR APPLYING LABELS TO CANS.

No. 478,298.

Patented July 5, 1892.



John F. Williams

W. S. Luvall.

By his Attorneys,

C. A. Snow & Co.

Inventor
John F. Williams,

(No Model.)

5 Sheets—Sheet 3.

J. F. WILLIAMS.

MACHINE FOR APPLYING LABELS TO CANS.

No. 478,298.

Patented July 5, 1892.

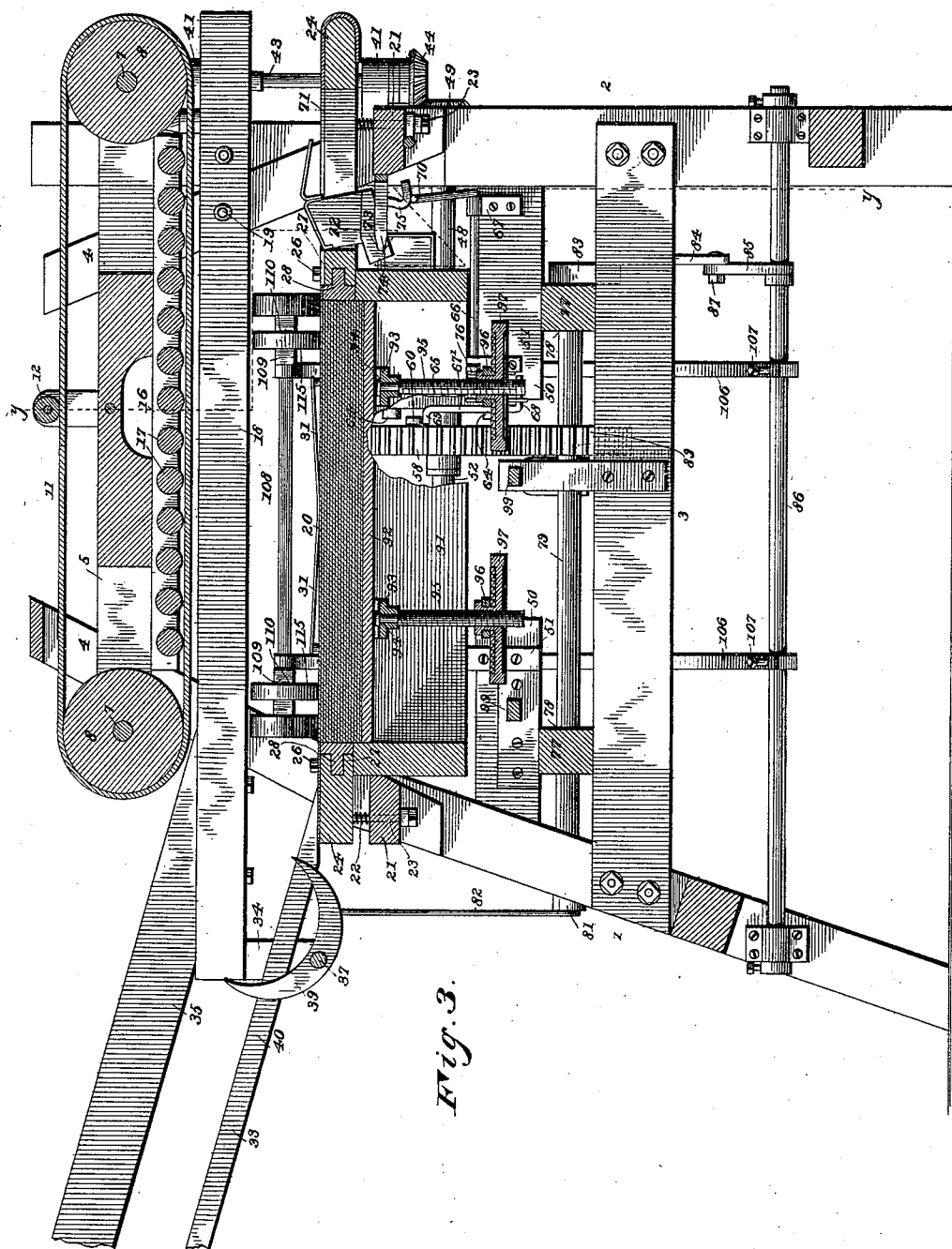


Fig. 3.

Witnesses:

J. M. Withrow

W. S. Swall.

Inventor,

John F. Williams,

By *his* Attorneys,

CA Snow & Co

(No Model.)

5 Sheets—Sheet 4.

J. F. WILLIAMS.
MACHINE FOR APPLYING LABELS TO CANS.

No. 478,298.

Patented July 5, 1892.

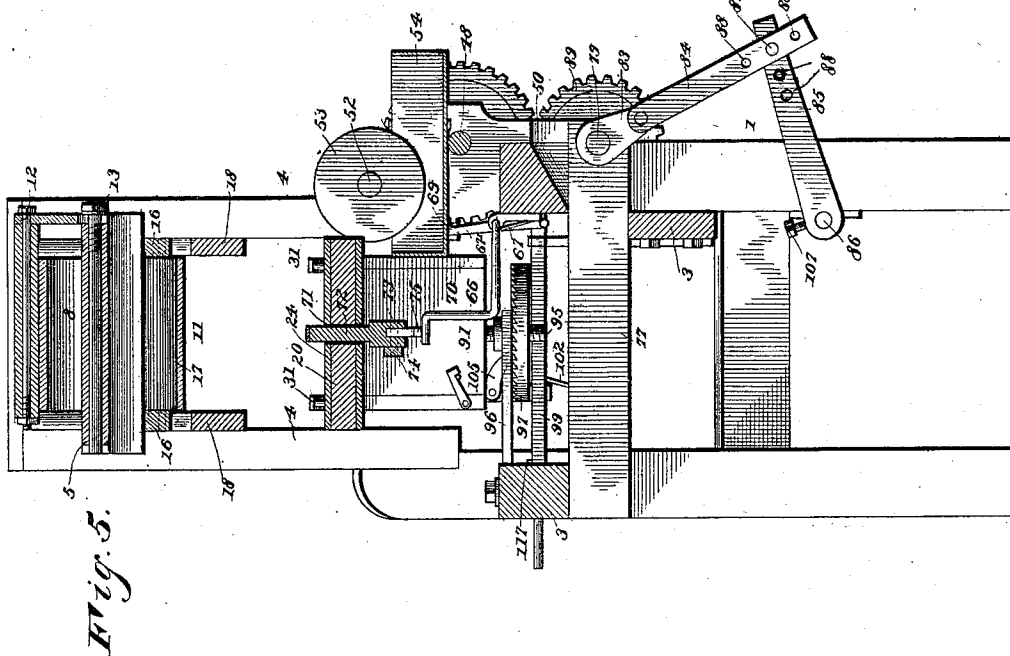


Fig. 5.

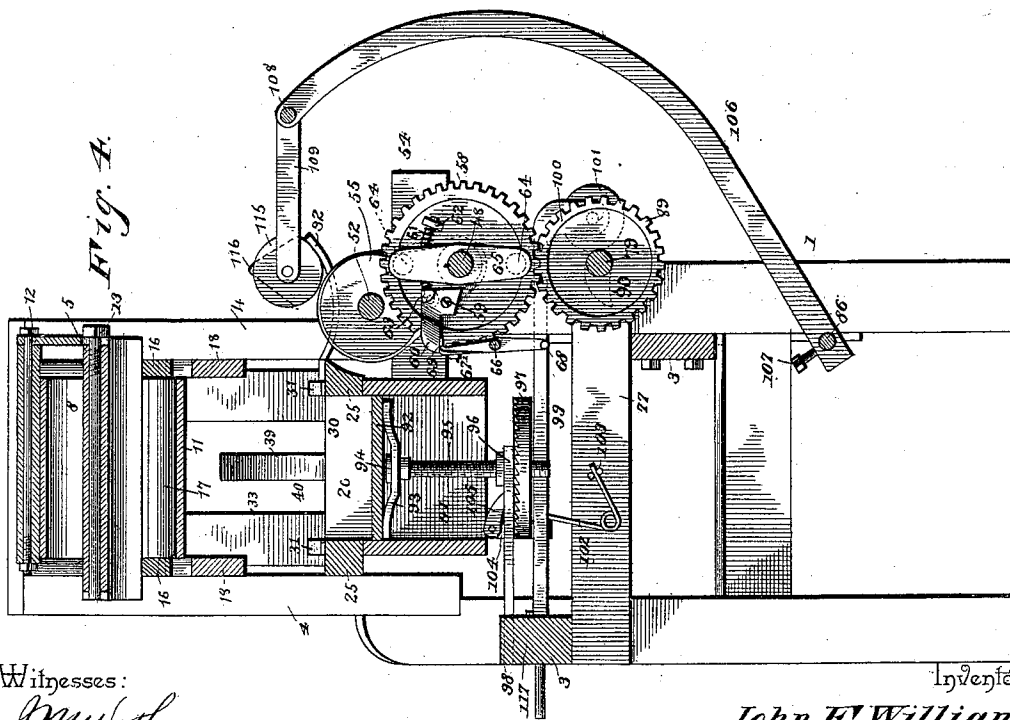


Fig. 4.

Witnesses:

John F. Williams

W. S. Duwall

Inventor,

John F. Williams

By his Attorneys,

C. A. Snow & Co.

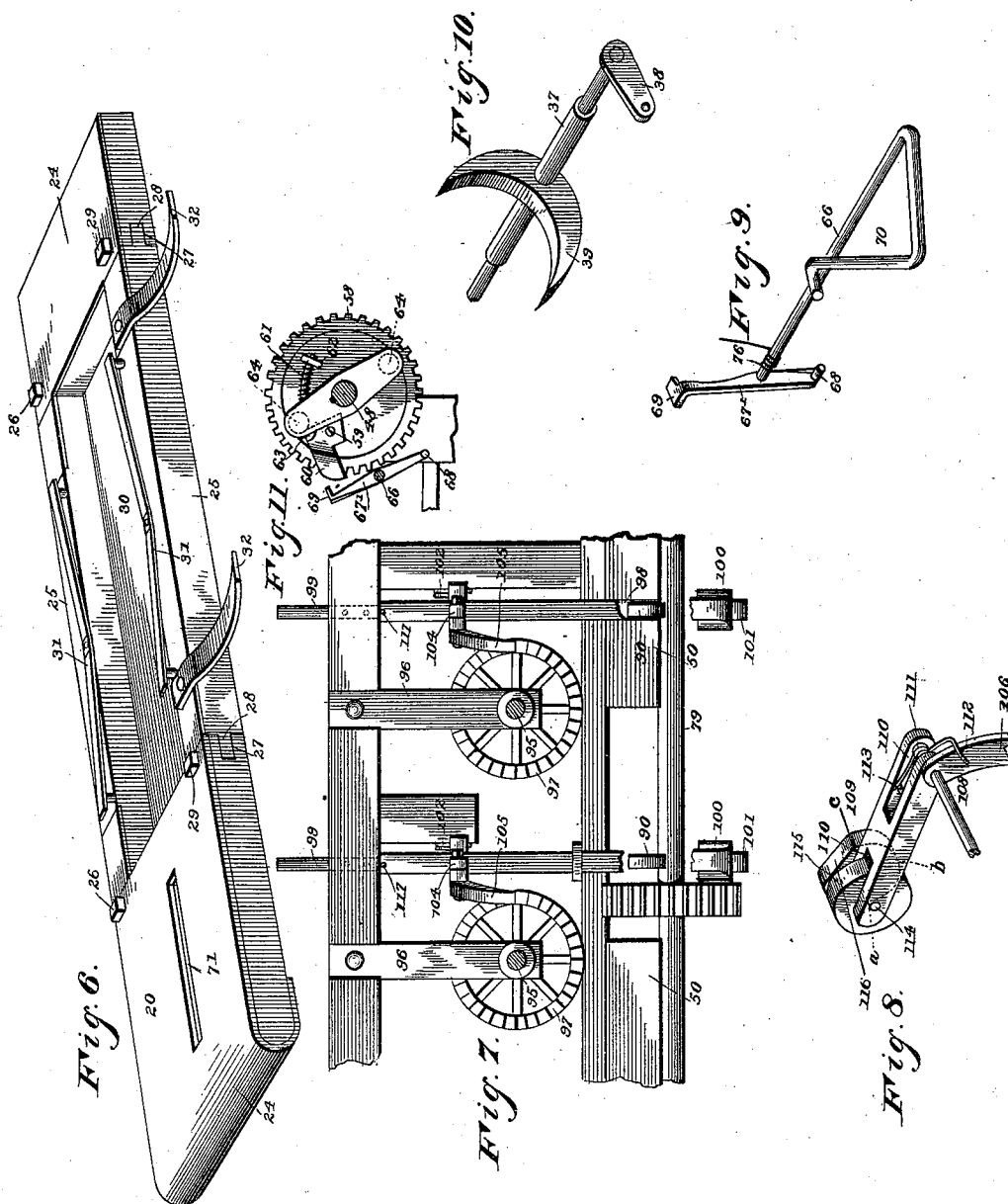
(No Model.)

5 Sheets—Sheet 5.

J. F. WILLIAMS.
MACHINE FOR APPLYING LABELS TO CANS.

No. 478,298.

Patented July 5, 1892.



Witnesses:

W. S. Duwall

W. S. Duwall

By his Attorneys,

Cash & Co.

Inventor,
John F. Williams

UNITED STATES PATENT OFFICE.

JOHN F. WILLIAMS, OF ROANOKE, VIRGINIA.

MACHINE FOR APPLYING LABELS TO CANS.

SPECIFICATION forming part of Letters Patent No. 478,298, dated July 5, 1892.

Application filed July 22, 1890. Serial No. 359,537. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. WILLIAMS, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented a new and useful Machine for Applying Labels to Cans, of which the following is a specification.

This invention has relation to a machine for applying labels to cans.

10 The objects of the invention are to provide a simple and comparatively inexpensive machine, to which cans may be successively fed and passed therethrough and said machine being so constructed and arranged as to automatically apply a label to the can during its passage.

Various other objects of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan of a can-labeling machine constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical longitudinal central section on line *xx* of Fig. 1. Fig. 4 is a vertical transverse section on the line *zz* of Fig. 2, looking in the direction indicated by the arrow. Fig. 5 is a similar view on the line *yy* of Fig. 3. Fig. 6 is a detail in perspective of the feed-table. Fig. 7 is a detail in plan of the feed-board-elevating mechanism. Fig. 8 is a detail in perspective of one of the paste-applying disks and its adjacent parts. Fig. 9 is a detail in perspective of the liberating crank-arm. Fig. 10 is a detail in perspective of the rock-shaft and can-separator. Fig. 11 is a detail view of the bell-crank latch and adjoining parts of the mechanism.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I construct the frame-work of four uprights, designated as the front uprights 1 and rear uprights 2, which uprights are connected by opposite longitudinal side bars 3. The uprights 1 and 2 each has bolted to its upper end an inwardly-inclined short bar 4, said bars at each side of the machine being connected by side rails 5, extending beyond the bars at the front and rear ends of the frame and terminating in open bearings 6, in each pair of which is mounted for rotation a transverse shaft 7, carrying

between its bearings a roll 8. The rails 5 are adjustable in the uprights 2 and inclined bars 4 by means of set-bolts 9, which pass through slots 10, formed in the bars 2 and 4. The rolls 8 are connected by means of an endless belt or apron 11, maintained taut by means of a belt-tightener 12, adjustably connected by a bolt 13 to the side bar 5. At one end of the rear shaft 7 there is mounted a drive-wheel 14, which is operated by a belt 15, leading to any suitable motor. Below the side rails 5 are arranged a pair of bearing-rails 16, securely bolted to the inclined bars 4, and journaled in said rails 16 is a series of loose rollers 17. Below the loose rollers 17 there is located a pair of guide-rails 18, securely bolted, as at 19, to the inclined bars 4, and said rails extend beyond said bars 4, as shown.

20 designates the feed-table, which is supported between the uprights 1 and 2 below the endless apron upon transverse bars 21. Projecting up through the bars 21 are bolts 23, the upper ends of which take under and support the table 20, and between the bars 21 and table 20 are interposed coiled springs 22, whereby said table has a yielding support. As more clearly shown in Figs. 3 and 6, the table 20 consists of two end pieces 24 and opposite longitudinal side bars 25, which connect the end pieces, one of said bars being stationary and securely bolted to the end pieces, as at 26. The opposite inner edges of the end pieces are mortised, as at 27, and the opposite ends of the remaining or adjustable side bar 25 is tenoned, as at 28, to engage the mortises. This side bar is thus adjustable to and from its companion side bar, the adjustment being maintained by means of set-bolts 29, and thus the space 30, bounded by the side and end bars, may be contracted, as indicated. Each of the side bars 25 is provided with a spring guide-strip 31, located at the inner edge thereof, and the adjustable side bar has secured to its upper face a pair of laterally-extending curved tracks 32.

33 designates an inclined feed table or way, the inner ends of which are secured to the front ends of the feed-table 20. Metal straps 34 extend from the said inclined way vertically and are connected by side bars 35, the inner ends of which are bolted, as at 36, to the upper faces of the guide-rails 18. A shaft

37 is journaled in the lower end of the metal straps 34 and at one end is provided with a crank 38. Between the straps the shaft is provided with a crescent-shaped rocking separator or feeder 39, the ends of which alternately project through a slot 40, formed in the inclined way and clearly shown in Fig. 1.

41 designates a pair of bearing-brackets, bolted, as at 42, to the rear upright 2, said upper bracket being adjustable by means of the slot 10, heretofore mentioned, which also accommodates the bolt 9. A telescopic shaft 43 is journaled in the vertically-opposite bearings 41, and said shaft is provided at each end with a beveled gear 44. The upper gear engages a similar gear 45, mounted upon the end of the shaft 7, that carries the drive-wheel 14.

46 designates a short vertical bearing-standard, the bearing of which is horizontally opposite a bearing-bracket 47, secured to the outer face of one of the rear uprights 2, and in said bearings 46 and 47 is mounted a horizontal rotatable shaft 48, which carries at its rear end a beveled gear 49, engaged and operated by the lower gear or pinion 44 of the telescopic shaft 43. A pair of inwardly-disposed supporting-bars 50 extend from the inner edges of the uprights 1 and 2, and upon one of the same is mounted the short vertical bearing-standard 46. These supports 50 have secured thereto a pair of horizontally-opposite bearing-standards 51, which support a rotatable shaft 52. The opposite ends of the shaft 52 carry rollers 53, the lower portions of the peripheries of which run in paste boxes or receptacles 54, mounted upon and supported by the inwardly-disposed supporting-bars 50. A grooved pulley 55 is mounted upon the shaft 52 and is driven by a belt 56, which also passes over a smaller grooved pulley 57, mounted upon the shaft 48. The shaft 48 carries near its center a gear 58, the inner face of which has pivoted thereto, as at 59, a bell-crank-shaped latch 60, which is connected to one end of a spring-actuated rod 61, the opposite end of the rod being mounted for movement in a perforated lug 62. (See Fig. 4.) The latch also is provided with a lug 63, which when in a certain position, which position is normal, is adapted to be struck by either of a pair of lugs 64, formed upon the inner side of a revolving yoke 65, set upon the shaft 48. The pinion 58 is loose upon the shaft 48, so that said shaft may be rotated while the pinion remains motionless. Such position of the parts, however, depends upon certain mechanism, which I shall now proceed to describe and which operates in connection with the bell-crank latch, heretofore described.

66 designates a rock-shaft, (shown best in Figs. 5 and 9,) and the same is journaled in bearing-lugs 67, located upon the inner face of one of the rear uprights 2 and the adjacent bearing-standard 51. This shaft is provided upon its inner end with a cross-arm 67', and the ends of the arm terminate in a lug 68

and an oppositely-disposed shoulder 69, the lugs and shoulder being located at opposite ends of the cross-arm. The opposite end of the shaft is cranked, as at 70, and terminates under the rear end of the table 24 and in vertical line with a short slot 71, in which latter is mounted a trip-block 72, pivoted, as at 73, to a bracket 74, and provided upon its under side with depending L-shaped studs 75, the lower end of which rests upon the cranked portion 70 of the rock-shaft 66. The trip-block normally projects above the upper face of the table 24, and, as will hereinafter appear, is adapted to be depressed by a cam passing thereover, and during such depression actuate the rock-shaft, by which it is normally held elevated, said rock-shaft being supported in such position as to elevate the trip-block by means of a coiled spring 76, coiled about the shaft and having one terminal made fast with the shaft and the opposite terminal sprung under and bearing against the stud 65. (See Fig. 3.)

In cross-bars 77 are formed bearings 78, and in the same I mount a horizontal shaft 79. The front end of the shaft extends beyond the front upright 1, in which it is also journaled, as at 80, and is there provided with a crank-arm 81, connected to the crank-arm of the rock-shaft 37 by means of a connecting-rod 82. The opposite end of the shaft 79 carries a crank 83, which is connected by an arm 84 with a rock-arm 85 of a horizontal rock-shaft 86, mounted in bearings formed upon the inner side of the front and rear uprights 1 and 2. The rock-shaft 86 is actuated in its movements by means of the shaft 79, and the distance in which the shaft 86 moves is regulated by means of a bolt 87, being inserted through any one of a series of adjusting-holes 88, formed in the arm 84. The shaft 79 carries a gear 89, which engages and is driven by the gear 58 of the shaft 48. This shaft 79 is also provided with a pair of cams 90. (See Figs. 4 and 7.)

91 designates a rectangular box, which depends from the table 20 and encircles or surrounds the opening 30 therein. Fitting loosely within the box 91 is a vertically-reciprocating follower 92, forming a bottom for said box. A yoke 93 is secured to the under side of the follower near each end of the same, and in said yoke is swiveled, as at 94, the upper end of a feed-screw 95. The two feed-screws pass through perforations formed in guide-plates 96, extending from one of the longitudinal side bars, and in the opening of each of said bars 96 there is mounted a ratchet-faced feed-disk 97, the hub of which is threaded to receive the feed-screw 95, and thus at each rotation or partial rotation of the disks the screws will be fed, and consequently the follower 92 elevated.

In bearings 98 are mounted two perforated reciprocating bars 99, the corresponding ends of which project beyond the sides of the machine and terminate in pairs of perforated

lugs 100, in each pair of which is mounted a roller 101, said rollers being located opposite or in the path of the cams 90. Springs 102, secured as at 103, serve to maintain the rollers 101 somewhat snugly against the shaft 79, and therefore in a position to be actuated by the cams 90. It will be observed that at each revolution of the shaft 79 the reciprocating bars 99 will be moved in one direction, and when released by the cams the springs 102 will move them in the opposite direction. Each of the bars 99 has a standard 104, and in the upper ends of each of said standards there is pivoted a gravity-pawl 105, each of said pawls engaging with and being adapted to actuate one of the ratchet-faced disks 97.

Upon the rock-shaft 86 there is mounted a pair of rock-arms 106, said arms being adjustable upon the bars by means of set-screws 107. The upper portions of the rock-arms are curved inwardly toward the machine, and are connected by a bearing-rod 108.

109 designates a block, the opposite ends of which are bifurcated, as at 110, and provided near the ends of the bifurcations with perforations. Those perforations formed in the rear bifurcations 110 receive the bearing-rod 108, and between the bifurcations there is wound upon the bolt a coiled spring 111, one terminal of which is laterally bent, as at 112, around the outer edge of its respective rock-arm 106. The opposite end of the same bears upon a transverse pin 113, so that the spring has a tendency to depress the block. It will be understood that two of such blocks are employed, one at each end of the rod 108. A bearing-pin 114 is located in the front bifurcation of each block, and between the bifurcations there is mounted on each of the pins a roller 115, and upon the outer end of each of the pins there is mounted loosely a segmental paste-distributing disk 116. This disk is arranged in the path of the paste-rolls 53, and the roller 115 is in line with and pressed upon the curved track 32, over which they ride by means of the springs 111.

In operation a package of the labels is inserted in the box 91 upon the follower 92, which has previously been lowered a sufficient distance within the box by disengaging the pawls 105 from the ratchets 97 and rotating said ratchets in a retrograde direction, either by hand or through mechanical means, which may be readily devised. The ratchets are then moved so that the upper face of the package of labels is flush with the upper surface of the table 20, and the adjustable bar 25 of said table is moved up so as to loosely and yet at the same time somewhat snugly fit the labels. A series of cans is now placed in the inclined way 33 and the machine started. The machine being started, motion is transmitted from the driving-pulley 14 to the shaft 7, the rolls 8, and belt 11, and also through the medium of the telescopic shaft 43 and its pinions 44 to the horizontal shaft 48 and through its gear 58 to the gear 89 of the shaft 79, and by

means of the crank 83 and arm 85 and the connecting-rod 84 the rock-shaft 86 is oscillated or rocked. As said shaft is rocked, the paster-disks 116 have their circular portions smeared with paste by contact with the revolving paste-wheels 53, which, it will be observed, are all the while being rotated in the paste-receptacles 54. An oscillation or rocking of the rock-shaft 86 moves the arms inwardly or toward the machine, and in such movement the loose rollers 115 travel along the curved tracks 32 and across the upper face of the package of labels, and thus press upon said labels by reason of the springs 111. The labels are thus retained against any possible displacement, while the pasting-disks 116, which are also loose upon their shafts, begin to distribute the paste. It will be observed that the central points *b* of their curved surfaces first come in contact with the adjacent edge of the uppermost label of the package, and that said paster is partially rotated and then dragged from the central point to its inner point *a*, (see Fig. 8,) whereby the paste between those points is transferred in a straight paste-line upon the label. As the pasters return to their starting-point, they then come in contact with the labels at their points *a*, are partially rotated at the points *a*, and dragged to *c* across the label. The curved surfaces of the pasters are formed upon an arc of a circle agreeing with the rollers, so that the peripheries of both pasters and rollers have simultaneous contact with the labels. In this manner one edge of the label is not smeared with a greater or thicker layer of paste than is the opposite edge, and the paste-line is of a uniform thickness or degree the entire distance across the label. By the tracks 32 the rollers 115 are elevated against the tension of the springs 111, so as to ride over the edge of the table. They also serve to prevent the besmeared surfaces of the pasters from coming in contact with the table, said pasters being supported above the table until directly over the pile of labels, the tracks terminating at the edge of the opening in the table. The shaft 79, being revolved through the means above indicated, raises the connecting-rod 82 and rock-shaft 37 and tilts the crescent-shaped separator 39, so that its outer end takes between the two advance cans of the series in the inclined way 33, and thus separates the first can from the remainder of the series, and, being curved, acts to gently push the can down the inclined way, where it rolls upon the table 20 and upon the package of labels. The paste is distributed upon the labels at their ends, so that the advance end of the label adheres to the surface of the can as the same is rolled thereover, said can being pressed upon the pasted point by means of the advance or front roll 8. The belt 11, being moved, catches the can as it leaves the way 33 and arrives upon the table 20, and carries said can along over the package of labels, the upper one of which is now being

wound upon the can, and snugly, too, by reason of the loose rollers 17 pressing upon the lower portion of the belt. By the time that the entire label is wound upon the can and the rear paste-line reached the rear roll 8 will give to the same the final pressing, so that the last end of the label is tightly pasted in position and the can is discharged. During the movements of the can through the machine the shaft 48 is revolving, but not the gear 58 thereof, which latter, it will be remembered, is loose thereupon and is maintained against movement by reason of the upper end of the cross-arm 67, resting under the bell-crank latch 60. When, however, said can passes over the trip-block 72, said block is depressed and depresses the cranked portion 70, and thus oscillates the rock-shaft 66 and withdraws the shoulder 69 of the cross-arm from under the bell-crank-shaped latch. This permits the spring-bolt 61 of the latch to throw the same to such a position that its lug 63 will be located in the path of the lugs 64 of the yoke 65, so that said yoke being fast upon the shaft 48 and moving therewith will come in contact with the lug 63, and thus rotate the gear, and it in turn will rotate the shaft 79 through the gear 89, and through the mechanism described again rock the shaft 86 and actuate the pasting mechanism, so that the next label is pasted and can delivered as the preceding can passes from the machine. By the time the gear 58 has made a complete revolution and arrives at its starting-point the stop 69 has returned into the path of the outer end of the latch 60 and the same is pressed to the rear, so that its lug 63 is out the path of the lugs 64 of the yoke. As the shaft 79 rotates, the cam-lugs 90 come in contact with and reciprocate the bars 99, and through the medium of the pawls 105 the ratchets 97 are revolved, and thus the threaded feed-shafts 95 fed upwardly. In this manner at each removal of a label the follower is elevated a distance agreeing with the thickness of the label, so that the upper surface of the package of labels is always flush with the table 20. The distance which the follower may be elevated at each reciprocation of the rotation of the shaft 79 may be readily regulated by means of an adjusting-pin 117. By this means thick and thin labels may be employed. By changing the bolt 87 to the various holes 88 in the arms 84 and 85, the oscillations of the shaft 86 may be regulated, and consequently the length of throw of the rock-arms 106 and the pasters, so that both narrow and wide labels may be employed.

By operating the bolts 9 in the slots 10 the endless apron or belt 11, the rollers 17 and 8, and the entire upper frame may be raised and lowered, so as to accommodate cans of various diameters.

From the above description it will be apparent that I have provided an extremely cheap and simple machine adapted to automatically feed cans thereinto and paste the

labels tightly therearound, said machine being composed of few and simple parts and adapted to be regulated and adjusted to accommodate cans of various sizes, both as to their diameters and lengths, and labels of various thicknesses, said machine being compact, durable, accessible, and not liable to become impaired.

Various details of construction herein described and illustrated may be modified at the option of the builder without departing from the spirit of my invention, and as will readily suggest themselves to the skilled mechanic.

I hereby disclaim as of my invention the following combination, to wit: in a machine for labeling cans, the combination of a label-holder, pasters for applying paste to the ends of the label, and a feed-belt for rolling said cans over said label.

In my invention I employ a series of loose rollers journaled between the rolls of the endless apron and bearing upon the lower portion thereof, whereby said apron is supported rigidly and the necessity of constantly taking up the tension of the belt is avoided. In fact, in my machine a tight belt can be dispensed with, because of the support given the belt by the loose rollers before mentioned.

Having thus described my invention and its operation, what I claim is—

1. In a machine of the class described, the combination, with the frame-work, the feed-way, and a label-holding table, of a pair of rolls journaled above the table, an endless apron mounted on the rolls, and a series of loose rollers journaled between the rolls and bearing upon the lower portion of the apron, substantially as specified.

2. In a machine of the class described, the combination, with a way having a slot, of a rock-shaft journaled under the way, means for intermittently operating the same, and a substantially crescent-shaped separator mounted on the shaft and adapted to have its opposite ends alternately projected above the surface of the way, substantially as specified.

3. In a machine of the class described, the combination, with the table or way, the movable follower supported therein, and a train of gearing for operating the machine, of a device, substantially as described, adapted to be operated by and located in the path of a can upon the table, and means, substantially as described, for operating the follower and adapted to be thrown into operative engagement with the train of gearing by the can-operated device, substantially as specified.

4. In a machine of the class described, the combination, with a table having an opening therein and a follower mounted for movement in the opening, of means, substantially as described, for raising the follower, a train of power-gearing for operating the machine, a trip yieldingly supported in a slot in the table in rear of the follower-opening and adapted to be depressed by a can moving thereover,

and devices, substantially as described, connected with and actuated by the trip and adapted for throwing the follower-operating mechanism into operative engagement with the power-gearing of the machine, substantially as specified.

5. In a machine of the class described, the combination, with the table having an opening therein and a follower mounted for movement in the opening, of means, substantially as described, for raising the follower, a train of power-gearing for operating the machine, a trip yieldingly supported in a slot in the table in rear of the follower-opening and adapted to be depressed by a can moving thereover, and devices, substantially as described, connected with and actuated by the trip and adapted for throwing the follower-operating mechanism into operative engagement with the power-gearing of the machine, and a spring for returning the trip after each depression and disengaging the follower-operating mechanism from said power-gearing, substantially as specified.

6. In a machine of the class described, the combination, with the table, of a paste-applying disk having a curved lower portion, a pivotal support for the same, and means, substantially as described, for reciprocating the disk, said disk being adapted to partially rotate and drag from the center of its curved portion to one end of its curved portion when moved in one direction and to partially rotate and drag from its center to its opposite end when moved in an opposite direction, substantially as specified.

7. The combination, with the label-supporting table, of a reciprocating block, a pin passing therethrough, a roller, and a paste-distributor mounted on the pin side by side, substantially as specified.

8. In a machine of the class described, the combination, with the label-supporting table, of a curved rock-arm, means, substantially as described, for rocking the same intermittingly, a block pivoted at the upper end of the rock-arm, a spring for normally depressing the same, a pin arranged in the opposite end of the block, a roller, and a paste-distributor mounted side by side upon the pin, substantially as specified.

9. In a machine of the class described, the combination, with a table having an opening, a depending box surrounding the opening, and a follower mounted in said box, of a pair of ratchet-wheels revolvably supported under the follower, threaded shafts passing through and engaging the hubs of the ratchets, reciprocating bars supported at the sides of the ratchets and terminating at their corresponding ends in depending bent portions, in which are journaled rollers, a pawl mounted on each shaft and engaging the teeth of the ratchet, a spring for moving the shafts in one direction and stops for limiting the movement of the rods in the opposite direction, and a shaft having cams for operating against the rollers,

and means, substantially as described, for rotating said shaft, substantially as specified.

10. The combination, with the label-carrying table having the pair of laterally-disposed curved tracks, of the pair of rock-arms, means, substantially as described, for operating said rock-arms, spring-pressed blocks pivoted in the rock-arms, paste-receptacles mounted below the blocks and tracks, bearing-pins mounted in the free ends of the blocks, rollers mounted upon the tracks and upon the pins, and paste-distributors mounted upon the pins at the sides of the rollers and in contact with the paste-rollers, substantially as specified.

11. In a machine of the class described, the combination, with the feed-table having an opening, the follower mounted below the table, the threaded shaft depending from the lower side of the follower, the rotatable centrally perforated and threaded ratchet-disk for the reception of the shaft, the reciprocating bar located at one side of the disk and provided with a series of adjusting perforations, of a pin passed through the bar and adapted to limit the movement of the same, a spring for throwing the shaft in one direction, a roller mounted in the opposite bent end of the bar, a shaft having a cam for operating the roller, and means, substantially as described, for operating the shaft, substantially as specified.

12. In a machine of the class described, the combination, with a table having a pivoted trip, a crank-shaft terminating in a crank-arm connected with the trip and at its opposite end provided with a cross-arm, a longitudinal shaft having a yoke provided with lugs arranged at one side of said cross-arm, a gear loosely mounted on the shaft, a pivoted bell-crank latch-spring pressed upon the gear and normally engaged by the cross-arm and adapted to be disengaged by each depression of the latch, a rock-shaft located below the first-mentioned shaft, and carrying-arms having paste-distributors, and connections, substantially as described, between the rock-shaft and said loose gear, whereby the rock-arms are operated by the gear, substantially as specified.

13. In a machine of the class described, the combination, with the feed-table having a pivoted trip arranged at the rear end of the same, a pair of vertically-opposite longitudinal shafts having gears engaging with each other and that of the upper shaft being loose thereon, a follower and its mechanism connected to and adapted to be operated by the lower shaft, a yoke mounted on the upper shaft, and devices, substantially as described, between the trip and loose gear, whereby a depression of the former locks the yoke with the loose gear, substantially as specified.

14. In a machine of the class described, the combination, with a longitudinal shaft having a crank-arm, a rock-shaft having a rock-arm, a rod having a series of perforations connecting the two arms, of a table, and a rock-arm mounted on the rock-shaft and provided at

its free end with a paster adapted to move over the table, substantially as specified.

15. In a machine of the class described, the combination, with a table adapted for lateral contraction and expansion, of a shaft mounted for rotation in bearings and terminating at one end in a crank-arm, means, substantially as described, for operating said shaft, a rock-shaft mounted below the same and having a rock-arm, and a connecting-rod adjustably connecting the rock-arm with the crank-arm, substantially as specified.

16. In a machine of the class described, the combination, with the frame-work, of an upper frame adjustably mounted therein, opposite shafts having rolls mounted in the upper frame, an endless belt connecting the two rolls, one end of one shaft being provided with a pinion and the opposite end with a pulley or master-gear, pasting mechanism located below the belt and comprising a shaft having a pinion arranged below the pinion of the shaft in the upper frame, and a telescopic vertical shaft terminating in pinions engaging the pinion of the upper frame and that of the lower mechanism, substantially as specified.

17. In a machine of the class described, the combination, with a frame-work, an inclined way leading thereto, a table having an opening, and a follower mounted in said opening, and in rear of said opening a trip, of a separator located in the way, pasting mechanism, substantially as described, located at one side of the table, and means, substantially as de-

scribed, for operating the separator, then the trip, and then the pasting mechanism in the order named, substantially as specified.

18. In a machine of the class described, the combination, with the frame-work, a table, and an inclined way leading thereto, of a separator-shaft located under the way and having a crescent-shaped separator and a rock-arm, a crank-shaft arranged at a right angle thereto and terminating in crank-arms, mechanism, substantially as described, for operating said shaft in an intermittent manner, a rod connecting one of the crank-arms with the rock-arm of the separator-shaft, a rock-shaft journaled below the crank-shaft and provided with rock-arms, each of which carries pasters, and at one side of the same a smaller rock-arm, and an adjustable rod connecting the last-mentioned rock-arm with one of the arms of the crank-shaft, substantially as specified.

19. In a machine of the class described, the combination, with the frame-work and the superimposed can-feeding device, of the intermediate table yieldingly mounted on the frame-work and provided with an opening, and a label-supporting follower mounted therein, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN F. WILLIAMS.

Witnesses:

R. W. DAYTON,
J. H. SIGGERS.