(No Model.)

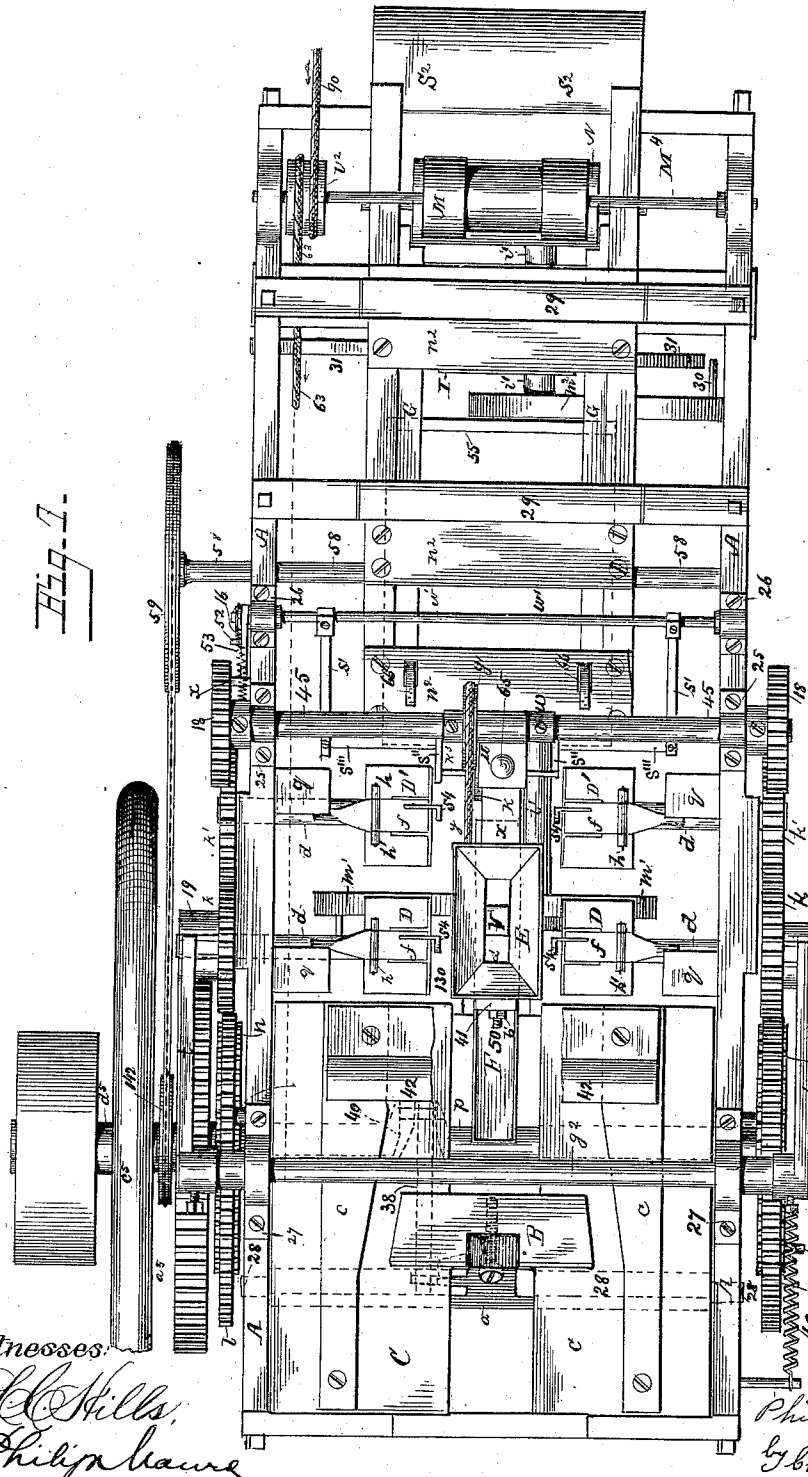
4 Sheets—Sheet 1.

P. W. WILEY.

MACHINE FOR ATTACHING LABELS TO PACKAGES.

No. 335,166. Patented Feb. 2, 1886.

Fig. 1.



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(No Model.) 4 Sheets—Sheet 2.

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Fig. 4.

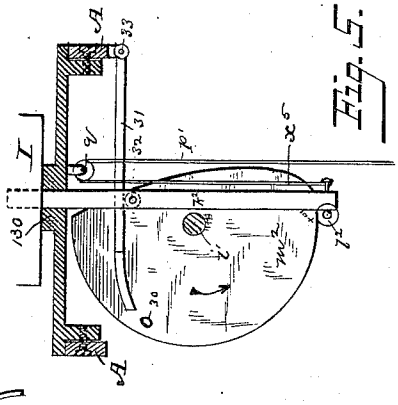


Fig. 5.

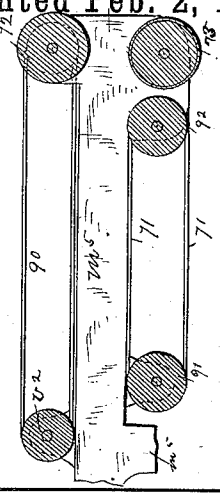
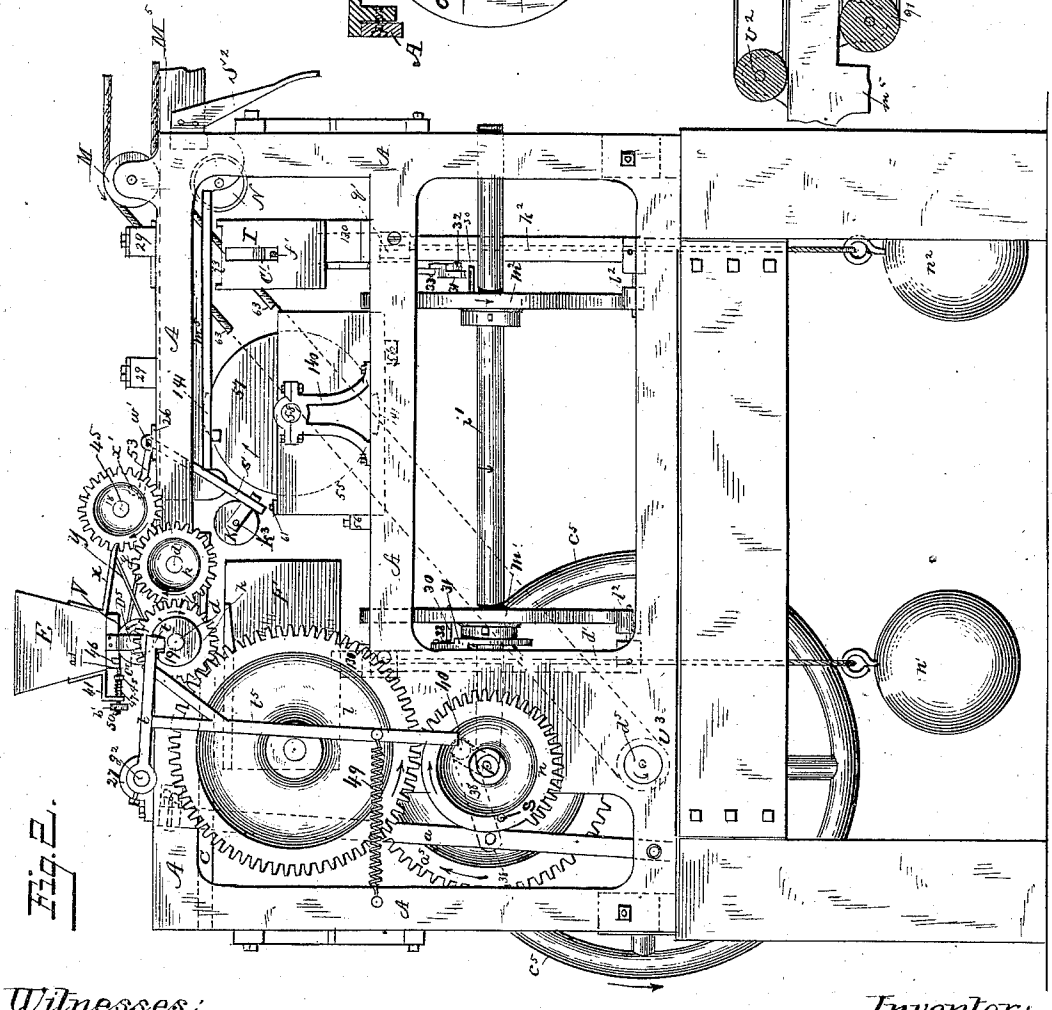


Fig. 2.



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(No Model.) 4 Sheets—Sheet 3.

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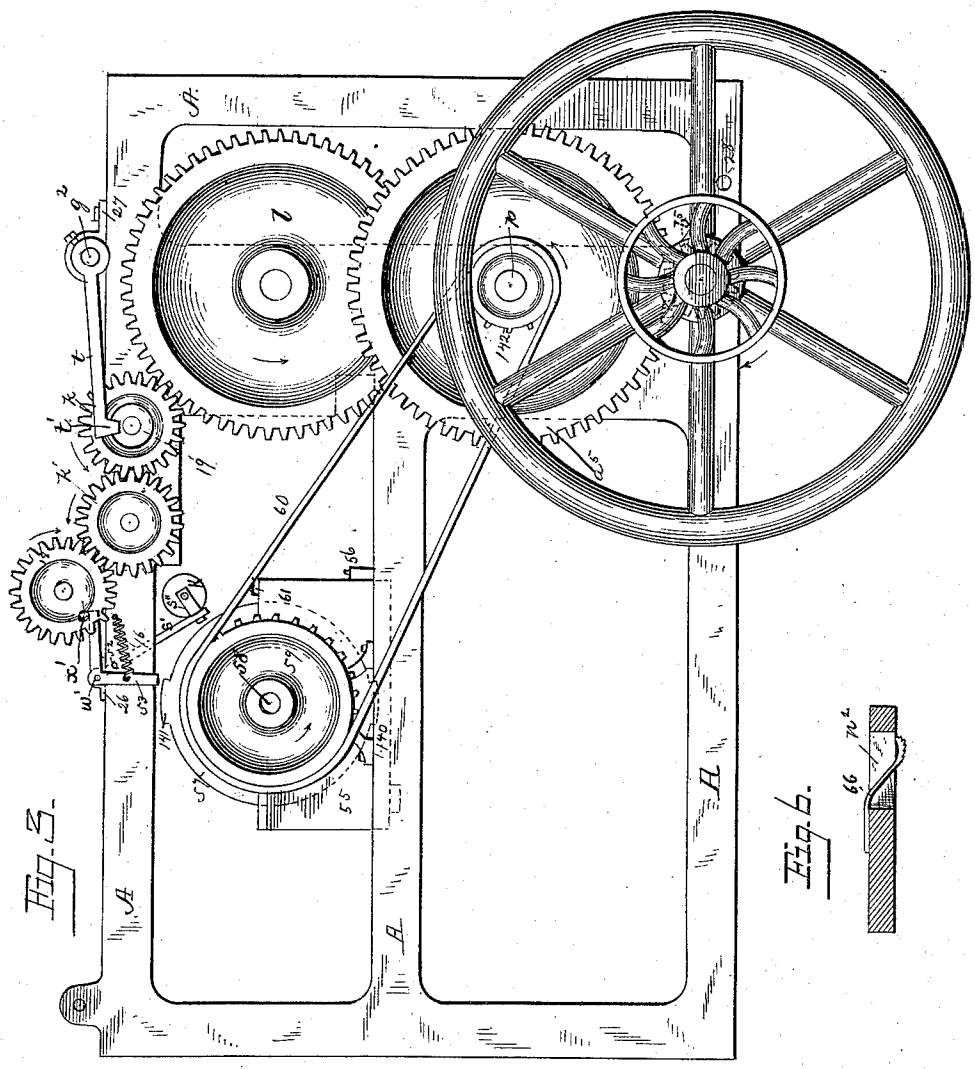

Fig. 3.

Fig. 5.

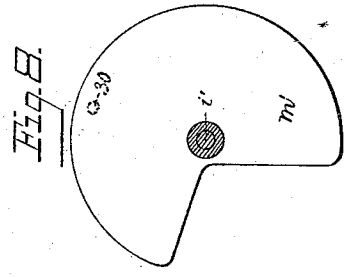

Fig. 8.

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(No Model.) 4 Sheets—Sheet 4.

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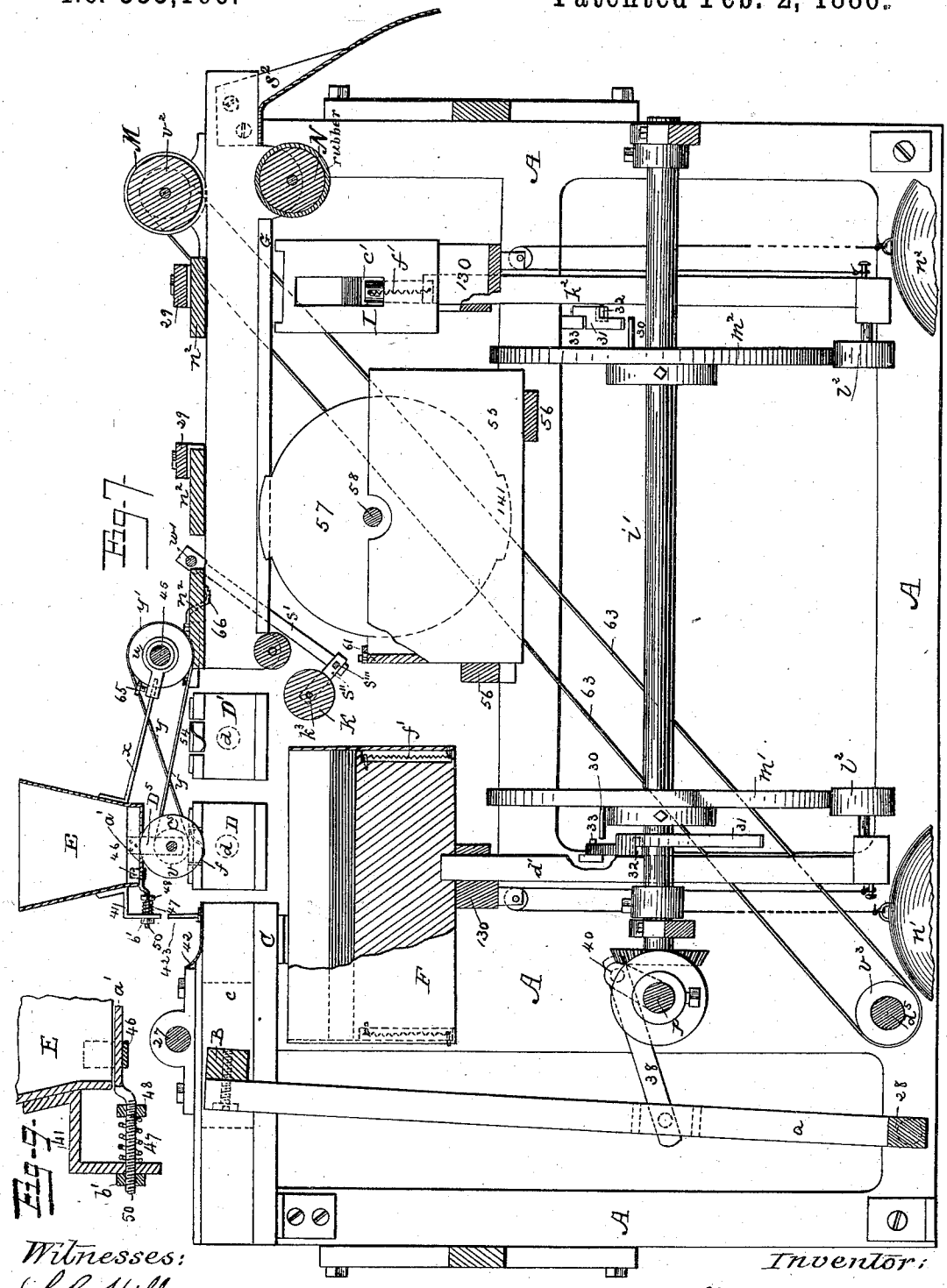

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UNITED STATES PATENT OFFICE.

PHILIP W. WILEY, OF RALEIGH, NORTH CAROLINA.

MACHINE FOR ATTACHING LABELS TO PACKAGES.

SPECIFICATION forming part of Letters Patent No. 335,166, dated February 2, 1886.

Application filed September 11, 1884. Serial No. 142,791. (No model.)

To all whom it may concern:

Be it known that I, PHILIP W. WILEY, a citizen of the United States, residing at Raleigh, in the county of Wake and State of North Carolina, have invented certain new and useful Improvements in Machines for Attaching Labels to Packages, of which the following is a full, clear, and exact description.

This invention has reference more particularly to machinery for attaching the labels to bags or packages of tobacco, but is applicable also to the attachment of labels to other articles.

It comprises certain improvements upon the labeling-machine described in Letters Patent of the United States issued to me July 8, 1884, and numbered 301,843. By the machine described in said patent the line of packages, all lying in the same direction, is fed forward the width of a package by an intermittently-operating feed. At the first step of the operation the package is grasped by holders, during the revolution of which a fountain paste-brush applies a band of paste around the entire irregular circumference of the package. The latter is then advanced into a second set of holders, and while stationary therein a label-box rises from below and applies the end of the strip-label to the package. When the label-box descends, the top label of the pile is left sticking to the package. The holders then make a complete revolution, during which a pressure-roller smooths and presses the strip-label upon the package. When the holders come to rest, the package is again advanced by the action of the feed until it comes to rest face downward over a stencil-plate, through which a rovolving paste-brush prints upon the package a layer of paste the size of the face-label. After further advance of the package the face-label is applied by the rise of a label-box, after which the package is fed between pressure and delivery rollers, which firmly press the label on the package.

The proper movements are given to the several parts by suitable gearing and connections, as fully set forth in my aforesaid patent.

The present invention consists, first, in improvements in the fountain paste-brush for the strip-label. Instead of being carried by a stationary cross-piece, the paste-box is fixed at one end of a horizontal arm connected at its other end with a collar or strap turning freely on a shaft crossing the machine. The paste-holder is thus allowed to rest by its own weight upon the package in the revolving holders, and to rise and fall, accommodating itself to the irregular circumference of the package. The paste is applied by a roller journaled in the box and turning through an opening in the bottom thereof. The roller is revolved by means of a belt and pulleys. An adjustable gate or scraper regulates the supply of paste.

The invention secondly consists in improvements in the means for lowering the label-boxes after the label has been applied, whereby the downward movement is made more steady and gradual. This downward movement is effected by means of a lever pivoted in the frame of the machine, and bearing on a friction-roller carried by the bar which supports the label-box. When the position of the cam allows the label-box to be raised by the weight, the lever is raised with the roller and box. On further revolution of the cam a pin on the face thereof comes in contact with the lever, slowly depressing the same, and the label-box with it, until the cam is again in position to keep the box in its lowered position.

The invention thirdly consists in means for locking the intermittently-moving parts of the machine during the intervals of rest, so as to prevent them, by momentum or from other cause, being carried beyond their proper positions. On the shafts carrying one set of holders are disks or wheels (one on each shaft) having one part of the circumference notched or cut away. Locking bars or arms fixed on a shaft crossing the machine-frame carry on their ends teeth, which drop into these notches at the moment when the intermittent motion of the parts should cease. These parts are therefore locked in position until a pin on one of the mutilated gears (which operate the intermittently-moving parts) engages an arm projecting from the locking-bar, raises said bar, and releases the wheels from the teeth.

The invention fourthly consists in improvements in the means for supporting and operating the roller which presses the strip-label in place. The axle of the roller is journaled in a yoke or frame fixed to the shaft, which in turn is journaled in the frame of the machine. When

the strip-label has been applied to a package in the second set of holders, the roller is pressed by means of a spring against the package, accommodating itself to the irregular outline of the latter as it revolves. When, however, the holders come to rest and the line of packages is about to advance, a pin on one of the intermittently-rotating wheels depresses the yoke or frame and the roller, and keeps the latter depressed during the whole time the holders are stationary.

The invention lastly consists in certain novel constructions and combinations of parts, as hereinafter set forth.

In the accompanying drawings, which form a part of this specification, Figure 1 is a plan view of the machine; Fig. 2, an elevation of the right side; Fig. 3, an elevation of the left side; Fig. 4, a detail view of the means for lowering the label-boxes; Fig. 5, a detail view of a pair of supplementary pressure-rollers, and Fig. 6 a detail view of a holding-finger. Fig. 7 is a vertical longitudinal section of the machine, the gearing being omitted, and also, for clearer illustration, certain parts which lie in front of the plane of section being shown in elevation, and other parts which lie behind being shown in section or being broken away. Fig. 8 is a side view of one of the cams. Fig. 9 is an enlarged detail view in vertical section.

A is the machine-frame; B, the feed-block for advancing the line of packages; C, a stationary table; D D′, the two sets of rotatory holders; E, the paste-box for the strip-labels; F, the box containing the strip-labels; G, stationary ledges; I, the box or receptacle for the face-labels; K, a pressure-roller; M N, pressure and delivery rollers. The packages are placed upon the table C in front of feed-block B, by which they are advanced. The block B is fixed on the end of a long lever-arm, *a*, which works in a slot or opening in table C. At its lower end the lever-arm is attached to a bar, 28, crossing the machine and journaled in the side frames thereof. Oscillating movement is imparted to it from the continuously-revolving shaft *p* (which carries the mutilated gear-wheels *n*) by means of crank 40 and pitman 38, and the action of the feed-block on the line of packages is timed to commence as soon as the teeth of wheels *n* have passed from engagement with idlers *l* and the intermittently-moving parts become stationary. The motion of the feed-block is through the arc of a circle of such large diameter that the block practically moves in a horizontal line. At each advance of the feed-block B a package is pushed from table C into the first pair of holders, D, which at that moment are stationary. A cover, 42, over table C, Fig. 1, serves to guide the bags more effectually into holders D. When holders D begin to revolve by engagement of the teeth of mutilated gears *n* with idlers *l*, setting the train of gears *k*, *k′*, and 18 into motion, a band of paste is applied around the entire circumference of the package from paste-box E. This box is fastened to one end of an arm, *x*, secured at its opposite end to a strap, *u*, by means of a thumb-screw, 65. Strap *u* loosely encircles a shaft, 45, permitting the paste-holder to rest always upon the package for the time being in holders D, and to rise and fall, so as to accommodate itself to the irregular outline of said package as it revolves. When there is no package in the holders, a stop, 423, supports the paste-box. The paste box or holder E is closed at the bottom, except where the roller V enters it. This roller rests directly upon the package in holders D and applies to it the band of paste for the strip-label. The roller V turns on an axle journaled in projections D^5, secured to holder E. The axle of roller V also carries a pulley, C^5, (shown in dotted lines, Figs. 2 and 7,) and on shaft 45 is another pulley, *y′*, connected with pulley C^5 by crossed belt *y*. Shaft 45 is journaled in pillow-blocks 25, and carries at its ends gears 18, meshing with gears *k*, and of the same size, so that said shaft 45 turns at the same speed as shafts *d*. When holders D and D′ and the packages therein begin to revolve, roller V also begins to turn through the paste in box or holder E and against the package in holders D. When the latter come to rest, roller V also becomes stationary. The strap *u* (see Fig. 1) is held on shaft 45, between a fixed collar, *w*, and the pulley *y′*. By loosening the screws which secure these parts to said shaft, and moving pulley *y′*, collar *w*, and strap *u*, the fountain may be shifted to any position on shaft 45. The bottom of paste-holder E on one side of roller V is closed by an adjustable gate or scraper, *a′*, the object of which is to regulate the quantity of paste drawn from the holder. The gate or scraper *a′* slides under and is supported by a strip or band, 46, secured at each end to holder E. The spring 47, bearing at one end against projection 41 and at the other against the milled nut 48, tends to keep the gate or scraper against the surface of roller V. The pressure of the spring is regulated by turning the nut 48 on the threaded shank 50. The latter passes through projection 41, and carries a thumb-nut, *b′*, by turning which the scraper is set the proper distance from the surface of roller V. When nut *b′* is turned in the opposite direction, the spring 47 may be made to press the gate or scraper *a′* against the roller V with sufficient force to cut off entirely the supply of paste. Pulley C^5 being smaller than pulley *y′*, the roller V rotates somewhat faster than the package in holders D, so that all, or nearly all, of the paste is wiped off against it. What remains is carried up again into the holder, an opening wide enough to allow this being left. It has been found in practice that an opening sufficiently wide for this purpose can be left without leakage of paste occurring through it. The holders D having completed a revolution, the shafts *d* and 45 come to rest.

To prevent the intermittently-moving parts passing the positions they should maintain

during the interval of rest, and to insure the holders D D′ being in the proper position to receive and discharge a package, the parts are locked in place as soon as the proper point is reached. This is effected in the following way:

To each end of a shaft, g^2, journaled in pillow-blocks 27, bolted to the frame A, is fixed a bar, *t*. Each bar carries at its end a tooth, *t′*, adapted to engage a notch in the disks or wheels 19 on shafts *d*, and arrest said shafts and the parts connected with them at the proper point. A spiral spring, 49, presses the tooth *t′* against the disk 19, and causes it to enter the notch therein. The notch is in position to receive the tooth at the moment when the mutilated gear *n* ceases to engage idler *l*, and the parts are thus locked in position until pin *s* on the face of gear *n* reaches the downwardly-projecting arm t^5 from locking-bar *t*. The pin moves this bar to the right, turns shaft g^2, and lifts both teeth *t′* out of the notches in wheels 19. When pin *s* passes arm t^5, the notches have passed from under the teeth. When shafts *d* have completed another revolution, the notches again come under teeth *t′*, and the intermittently-moving parts are again locked in position. Shaft 45, with its gears 18 on each end, acts as a connection between the intermittently-rotating parts on each side of the machine, so that by no accident could the gear-wheels on one side move without turning the corresponding parts on the other side. The package having received a band of paste in holders D, is passed to holders D′, to receive the end of the strip-label in box F. This box is carried by a slide-bar, *d′*, supported and guided by the stationary cross-piece 130. It is connected by a cord running over a stationary pulley and connected with a weight, *n′*, which is heavier than the label-box and its slide-bar. When the cut-away part of the revolving cam *m′* permits the weight *n′* to raise the label-box F and its supporting-bar *d′*, the end of a label is applied to a freshly-pasted package, as described in my former patent. The label-box I is carried by a slide-bar, k^2, which is connected with a weight, n^2, and controlled by the cam m^2. The cams m' m^2 are carried by a shaft, *i′*, connected by bevel-gears with shaft *p*, as described in said patent.

The means for operating both the boxes F and I are similar, and it will therefore be sufficient to describe such means with reference to one box only.

The new parts for both boxes are correspondingly lettered and numbered.

In Fig. 4 the shape of the cam m^2 for box I is shown, and in Fig. 8 that of cam *m′* for box F. Nearly one-half of the disk m^2 is cut away, giving the box an abrupt ascent. The cam *m′* is not so much cut away, box F having a quicker return, as described in my said patent. It is desirable, however, that the return movement should be more gradual than the ascent. This is effected in the following manner: A trip-lever, 31, is pivoted to the machine-frame, and passes between the supporting-bar *d′* (or k^2) and the cam *m′*, (or m^2.) It rests upon a friction-roller, 32, carried on a stud secured to said bar. The shape of the lever, which is provided with an offset, as shown in Figs. 2 and 7, permits it to approach nearer to the cam at its free end. When the box is lifted by the weight *n′*, (or n^2,) the lever is lifted also, and the parts remain in their raised position until the pin 30 on the face of the cam comes in contact with the lever 31 near its free end, the pin in its ascent having, in consequence of the offset, passed the lever (see Figs. 2 and 7) without touching. As pin 30 begins to bear on lever 31, the latter is pressed downward, carrying with it the bar *d′* (or k^2) and the label-box, and the action of the pin on the lever continues until the point x^5 of the cam passes over the roller l^2 at the bottom of the bar. (See Fig. 4.) The cam is now in position to keep the box depressed, and the pin 30 releases the lever, so that the weight can raise the box at the proper time.

As described in my former patent, the bottoms of the label-boxes can move independently of the sides, being connected with the latter by pins working in slots and by tension-springs.

As herein shown, the springs which raise the sides as the boxes descend are placed inside the boxes, being arranged in grooves in the ends of the bottoms or plungers.

Parts of the upper ends of the boxes are cut away, as shown at i^3, Fig. 2, so as to admit air, whereby the separation of the under labels from the top one as the box is lowered is facilitated.

The end of a strip label from box F having been applied to a package in holders D′ while the same were stationary, and the label-box being lowered out of the way, the strip-label is now to be wrapped around and pressed against the package by the pressure-roller K. This roller K is carried on an axle, k^3, journaled in the arms *s″*, (see Figs. 7 and 1,) attached to the cross-bar *s‴*, which is carried by the arms *s′*, fastened to and depending from the shaft *w′*, having bearings in pillow-blocks 26, bolted to the frame of the machine.

Secured to one end of shaft *w′* (see Fig. 3) is an angle-piece, 53, having two legs or branches. A spring, 16, attached to one leg and to the frame A, tends to turn shaft *w′* so as to raise roller K. When in its raised position, roller K is held by spring 16, with yielding pressure, against the package in holders D′, and can therefore adapt itself to the irregular shape of the package. It is in contact with the package during nearly the entire revolution of holders D′, and thereby presses the strip label or band in place. Just before the holders complete their revolution, and the parts come to rest for another action of the feed, a pin, *x′*, on wheel 18 comes in contact with the upper leg or branch of angle-piece 53 and depresses it and roller K, and this pin is

still in contact with the angle-piece when the parts come to rest, so that the roller is in its lowered position during the whole interval of rest. When in this position, it is out of the way of label-box F in its ascent. As soon as the wheels are released from locking-bar *t* and begin another revolution, (the label-box having descended,) pin *x'* releases angle-piece 53, and roller K is again raised by spring 16. A stop, 52, in the path of the angle-piece 53 limits the upward movement of the roller K when holders D' are empty.

The holders D and D' are essentially the same as in the machine described in my aforesaid patent, to which reference may be had for a fuller description of their construction and operation. In the present invention (see Fig. 1) the holders are provided with spring-arms 54, curving downward, and acting to steady the bags in the holders until the clamping-jaws *f* come into action, which is not until the holders begin to revolve. When a package has been discharged from holders D' and pushed onto the ledges G, its upper surface is caught by the toothed fingers, 66, projecting through slots in the cover n^2. The teeth on these fingers offer no impediment to the advance of the package, but are arranged to prevent its being drawn back. This device is shown in the detail view, Fig. 6. The fingers 66 are placed where they will not come in contact with the freshly-pasted strip-label. The bag or package discharged from holders D', with the strip-label secured around it, is fed, face downward, over ledges G, having an open space between for the application of a quadrangle of paste for the face-label. This is applied by a cylinder, 57, Figs. 2, 3, and 7, turning in a paste-well, 55, supported by cross-pieces 56, extending from the side pieces of frame A. Shaft 58 of cylinder 57 is journaled in standards 140, supported by the frame A. The sides of paste-well 55 are cut away for the passage of the shaft. Cylinder 57 has raised segments 141, of the shape and size of the square of paste to be printed, (slightly smaller than the face of the bag.) The width of these segments bears the same proportion to that of the intervening depressions that the time occupied in advancing a package one step bears to the intervening period when the packages are stationary, so that the edge of one segment comes into position to act upon a package at the moment the feed begins to act, and passes out of contact with the package the moment the same comes to rest. During this contact a rectangle of paste of size corresponding to the face-label has been printed on the package. The cylinder continues to revolve; but during all the time the packages are stationary the depressed part of the surface is uppermost. Constant rotation is imparted to the cylinder from main shaft *p*, through sprocket-wheels 142 and 59 and drive-chain 60. The wheel 142 is on shaft *p*, and wheel 59 is on shaft 58. The relative sizes of the two sprocket-wheels will be determined by the size of cylinder 57 and the number of raised segments thereon, it being necessary that shaft *p* should make as many revolutions for one of shaft 58 as there are raised segments on cylinder 57. Thus, as shown, said cylinder is provided with two segments. Wheel 59 is therefore twice the size of wheel 142, and shaft 58 makes one revolution while shaft *p* is revolving twice. It should be observed that the segments 141 are not quite so wide as the packages, being constructed to leave a margin around the label. If, however, the labels are to be the same width as the bags or packages, the latter could be relied on to turn the cylinder as they are fed forward. In such case there would of course be no depressions in the surface of the cylinder. A scraper, 61, attached to the end of paste-well 55, and adjustable by means of screws and slots, serves to regulate the quantity of paste adhering to segment 141. Passing from over the paste-well 55, the package subsequently comes to rest above the box I, carrying a pile of face-labels, which are applied in the manner already described with reference to box F. After this operation the package is fed between the pressure and delivery rollers M N. The latter is surfaced with rubber. The former is cut away or grooved in the middle, (see Fig. 1,) obviating the danger of pulling up or tearing the band or strip label as roller M rolls the bag against pressure-roller N. The roller M receives its motion from fly-wheel shaft d^5, by means of a pulley, v^2, on shaft M^4, belt 63, and a pulley, v^3, on shaft d^5. Belt 63 runs inside the frame of the machine. The bags or packages, after passing between the rollers M N, can be delivered by a chute, s^2, into a proper receptacle, or (as is preferable) they may be fed onto an endless belt or apron, 71, and after a few moments' rest, while the latter is advancing, be passed between a second pair of pressure-rollers. These supplemental rollers are shown in Fig. 5. The pieces M^5 of the frame are extended, and in them are journaled rollers 91 92, over which travels the endless apron 71. The supplemental rollers 72 73 are also journaled in the frame-pieces M^5. The latter is rotated by means of a belt, 90, an additional groove therefor being provided in pulley v^2. The object of this arrangement is to give the bags sufficient time for the paste to soak well into the labels before submitting them to additional pressure between rollers 72 73.

Motion is communicated to the machine through a pulley on fly-wheel shaft d^5. This shaft carries a gear, b^5, (shown in dotted lines, Fig. 3,) meshing with the gear a^5 on shaft *p*. The wheel b^5 being much smaller than wheel a^5, a slow steady movement is imparted to the latter, and through it to shaft *p*, from which most of the parts receive their motion.

While the foregoing description and the drawings referred to therein set forth what is believed to be the best manner of carrying out and practically applying the principle of my

invention, it is obvious that many modifications could be made in the details of construction and dispositions of parts without departing from the spirit of the said invention. It is equally obvious that parts of the invention could be used separately. For example, any one or more of the improvements herein set forth could be applied to the machine described in my former patent without the others.

I claim the new improvements herein described, all and several, to wit:

1. In a machine for attaching labels to packages of squared or irregular form, the combination, with the rotatory holders constructed to receive the package, of a paste box or holder fixed at the end of a pivoted arm, and adapted to rest by its own weight upon the package in said holder, conforming to the irregular outline of the latter as it revolves, substantially as described.

2. In a machine for attaching labels to packages of a squared or irregular form, the combination, with the rotatory holders for said packages, of the paste box or holder and the paste-roller turning in the bottom thereof, said holder being supported by said roller, so as to rise and fall freely as the package revolves, keeping the roller always in contact therewith, substantially as described.

3. In a labeling-machine, and in combination with the rotatory package-holding appliances, the mechanism described for applying a band of paste to the package, said mechanism comprising a paste box or holder supported at the end of a lever-arm, and a paste-roller turning in the bottom of said box or holder and adapted to rest upon the package, substantially as set forth.

4. The combination, with the holders and means for rotating the same, of the paste-roller for applying a band of paste to the package, and connections for revolving said roller, substantially as described.

5. The combination of the holders for the package, gearing for rotating the same at intervals, the paste-box having a roller turning in the bottom thereof and resting upon the package in said holders, and mechanism—such as a belt and pulleys—for revolving said roller simultaneously with said holders, substantially as described.

6. The paste box or holder carried at the end of an arm, said arm being secured to a strap which loosely encircles a shaft crossing the machine, said strap, arm, and paste box being adjustable longitudinally on said shaft, substantially as described.

7. The combination of the stationary table, holders at the end thereof, pivoted feed-block working through an opening in said table, and a cover over said table to assist in guiding the packages into said holders, substantially as described.

8. The combination of the holders constructed to receive and hold the packages, gearing for revolving said holders at intervals, and mechanism—such, for example, as the notched disks, toothed bars, spring, and releasing-pin—for automatically locking said holders in place after each revolution as soon as they have reached the proper position to receive and discharge a package, substantially as described.

9. The combination of the holders supported on shafts journaled in the frame of the machine, gearing for imparting to said shafts an intermittent rotation, and automatic locking devices—such, for example, as the notched disks, toothed bars, spring, and releasing-pin—for locking said shafts in position after each revolution, substantially as described.

10. The combination, with the intermittently-rotating shafts and the package-holders mounted thereon, of notched disks on said shafts, and pivoted locking-bars, each carrying a tooth adapted to enter the notches in said disks when the proper point in their revolution has been reached, substantially as described.

11. The combination, with the package-holders, the intermittently-rotating holder-shafts, and the locking bar or bars for holding the same stationary, of mechanism, as described, for releasing said bar or bars from said shafts before the latter begin to revolve, substantially as set forth.

12. The combination, with the package-holders and the holder-shafts, of mutilated gears for rotating said shafts at intervals, an automatic locking-bar for engaging a notched disk on one of said shafts, and a pin on the face of one of said mutilated gears, adapted by contact with a projection of said locking-bar to release the same at the proper moment from engagement with said notched disk, substantially as described.

13. The combination, with package-holders, the holder-shafts, and gearing for rotating the same at intervals, of another shaft journaled on both sides of the machine, and carrying at its ends gears which mesh with the gears on the holder-shafts, said shaft and its gears acting as a connection between the intermittently-moving parts on both sides of the machine, substantially as described.

14. The combination, with the rotatory holders, of the spring-arms for steadying the packages therein, substantially as described.

15. The combination, with mechanism for feeding a series of packages and for applying labels thereto, of a passage-way for the packages provided with toothed holding-fingers for preventing their movement backward, substantially as described.

16. The combination, with the reciprocating label-box and the cam for controlling its upward movement, of the lever and the revolving pin for engaging said lever to lower the said box, substantially as described.

17. The combination, with the label-box, supporting-bar, cam controlling the movements of said box, and pin on the face of said cam, of the lever extending between the cam and supporting-bar, and having an offset, so

as to be struck by said pin on its descent, but to be clear thereof on its ascent, substantially as described.

18. The combination, with the rotatory holders and label-applying mechanism, of the pressure-roller carried by a pivoted frame, a spring for holding the roller with yielding pressure against the package in said holder while the same is revolving, and means, as set forth, for withdrawing the roller, substantially as described.

19. The combination of the rotatory holders, pressure-roller, frame carrying the same and secured to a shaft, spring tending to press said roller against the package in said holders, and a projection on the end of said shaft in the path of a pin on one of the intermittently-rotating wheels, whereby the roller is held clear of the packages during the time the feed operates, substantially as described.

20. The combination, with the intermittent feed, the package-supports, and the reciprocatory box for face-labels, of the paste-cylinder and paste-well for applying paste to said packages preparatory to applying the face-labels, said well being fixed on the machine-frame, and the paste-cylinder turning in stationary bearings, so that the paste is applied by the feed of the packages in contact with the cylinder, substantially as described.

21. The combination, with the intermittent feed and the driving-shaft for giving an advance movement to the feed at each revolution of said shaft, of the paste-well, cylinder turning therein and having on its surface alternate raised segments and depressions, and the shaft for said cylinder connected with a driving-shaft, so as to rotate said cylinder once for as many revolutions of said driving-shaft as there are raised segments on said cylinder, substantially as described.

22. In a labeling-machine of the character described, and in combination with the mechanism for pasting a strip-label around a package, the pressure and delivery rollers, the upper roller being cut away or grooved in the middle, so as not to act upon the strip-label, substantially as and for the purpose described.

23. The combination, with the paste and label applying mechanism and the pressure-rollers acting on the packages after the labels have been applied, of additional pressure-rollers for pressing the packages after an interval sufficient to permit the paste to soak, substantially as described.

24. The combination, with the paste and label applying mechanism and the pressure-rollers, of an endless belt or apron upon which the packages are delivered by said rollers, additional rollers for receiving the packages from said belt or apron, and connections—such as a belt and pulleys—for turning said rollers, substantially as described.

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

PHILIP W. WILEY.

Witnesses:
O. H. FOSTER,
JOS. G. BROWN.