F. O. WOODLAND.

PACKAGE HOLDING REST FOR LABELING MACHINES.

APPLICATION FILED JULY 21, 1910.

1,010,999.

Patented Dec. 5, 1911.

4 SHEETS—SHEET 1.

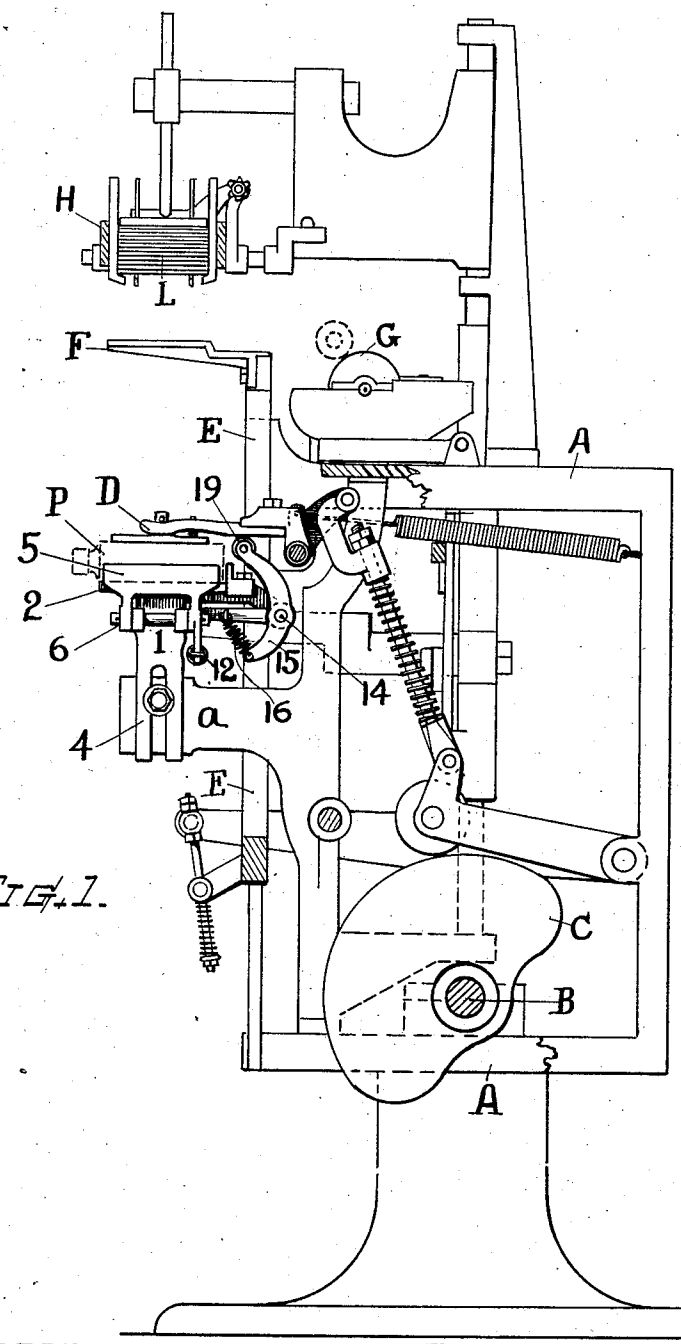

FIG. 1.

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Albert W. Pomeroy

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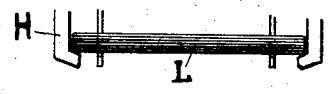

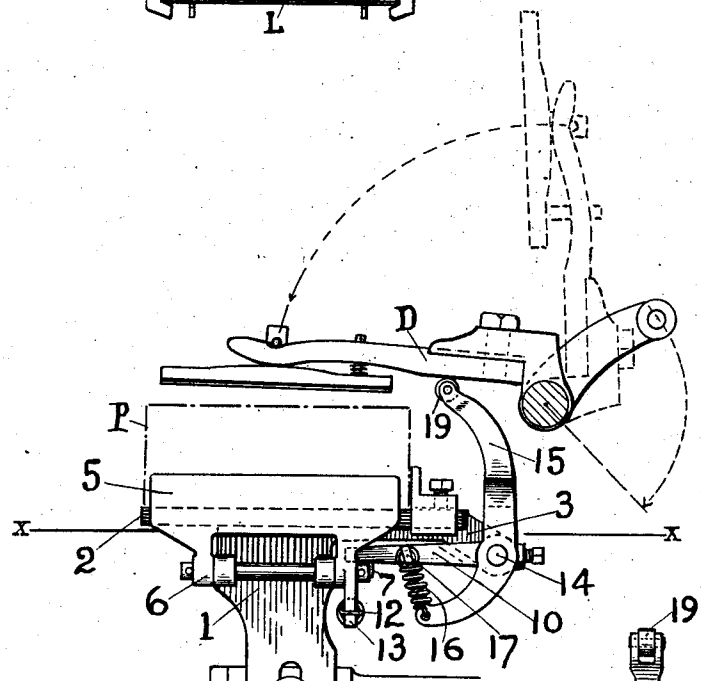

Fig. 2.

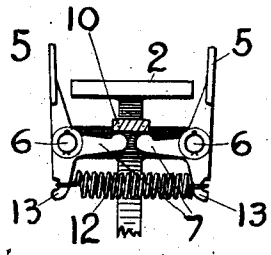

Fig. 4.

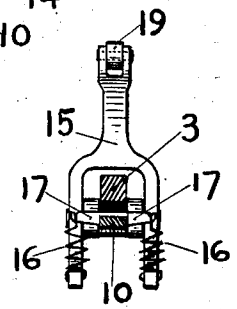

Fig. 5.

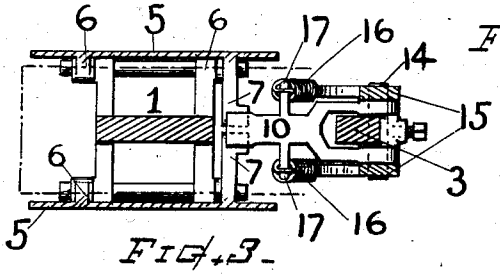

Fig. 3.

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4 SHEETS—SHEET 3.

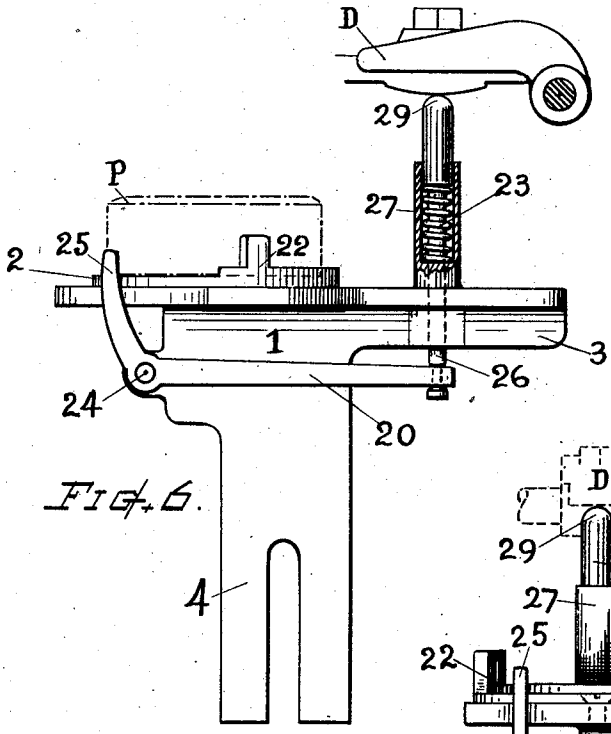

FIG. 6.

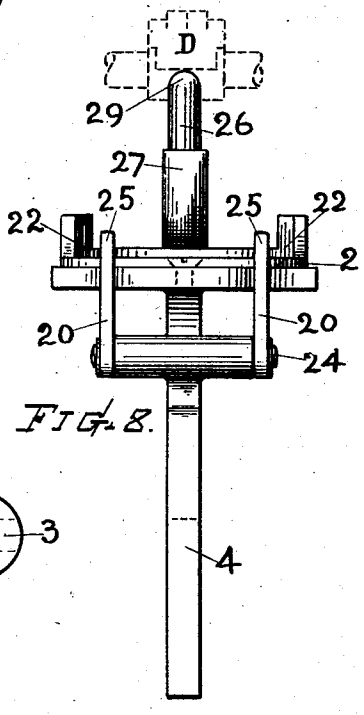

FIG. 8.

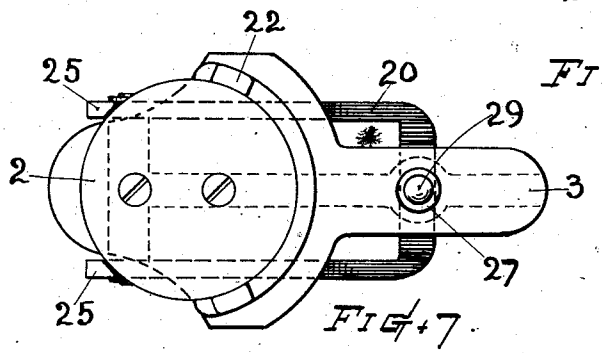

FIG. 7.

Witnesses.

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4 SHEETS—SHEET 4.

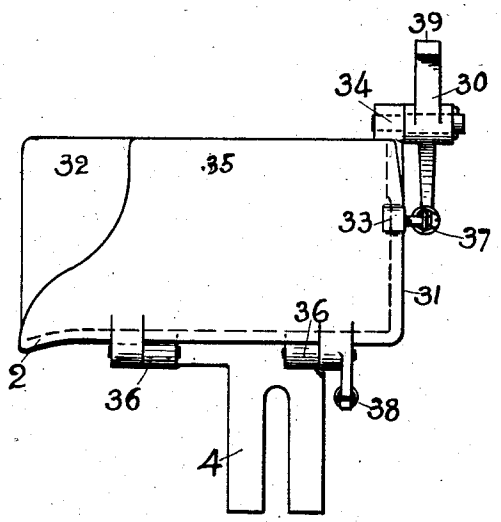

FIG. 9.

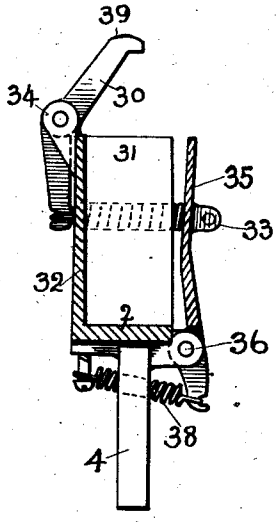

FIG. 11.

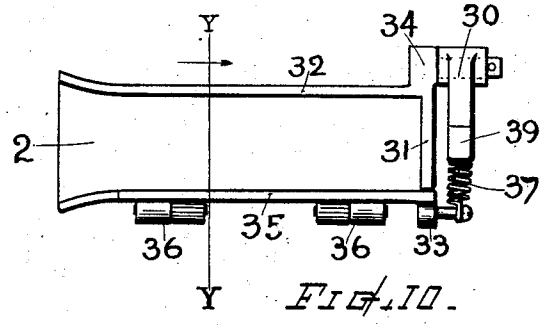

FIG. 10.

Witnesses.
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UNITED STATES PATENT OFFICE.

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PACKAGE-HOLDING REST FOR LABELING-MACHINES.

1,010,999. Specification of Letters Patent. Patented Dec. 5, 1911.

Application filed July 21, 1910. Serial No. 573,002.

To all whom it may concern:

Be it known that I, FRANK O. WOODLAND, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Package-Holding Rest for Labeling-Machines, of which the following is a specification, reference being made therein to the accompanying drawings.

The object of my invention is to provide a package-holding rest, provided with means for embracing and temporarily clamping the package or article thereon for securing or retaining the same while a label is being affixed thereto.

Another object is to provide, in a labeling machine, a supporting-rest with a convenient and efficient means for automatically centering or correcting the position of the package, bottle, or other article to which the label is to be applied, after it has been laid upon the supporting-rest, and preparatory to the affixment of the label to said article; also, to afford a means of this kind peculiarly adapted for small packages and bottles, or other forms of articles, the primary placing of which upon the rest in exact proper position may be otherwise difficult or inconvenient.

Another object of my invention is to provide, in combination with a label-gripping device, and means for gluing and presenting the labels; of a supporting-rest, and mechanism for centering and holding the bottle, package, or other article upon the rest, and means for actuating the same in conjunction with the label-gripping devices, or similar working part of the labeling machine.

These and minor objects and features of my invention are more fully set forth and explained in the following detailed description of a preferred practical embodiment of the invention; the particular subject matter claimed being definitely expressed in the summary.

In the drawings, which include such parts of a labeling machine as will illustrate the nature and mode of operation of my present invention, Figure 1 represents a side view of my package-holding rest, as combined with the general mechanism in one style of labeling machine. Fig. 2 is a side view of the package-holding rest on a somewhat larger scale, and illustrating its operation by the swinging label-grip device of the labeling machine. Fig. 3 represents a horizontal section at line X X on Fig. 2. Fig. 4 is an elevation view of the rest. Fig. 5 is a vertical transverse section looking toward the actuator levers. Fig. 6 represents a side view of a holding-rest, as modified and adapted for holding round or cylindrical packages while labeling the ends thereof. Fig. 7 is a plan view of the same, and Fig. 8 a front elevation view of the same. Fig. 9 represents a side view of a modified form of package-holding rest adapted for larger rectangular packages, and illustrating a form having one side member movable and one fixed. Fig. 10 is a plan view of said modification, and Fig. 11 is a transverse vertical section of the same at line Y Y on Fig. 10.

Referring to the drawing, Fig. 1, A indicates the machine frame; B the operating shaft; C the grip-actuating cam; D a grip-device; E the reciprocating picker-carrier; F the glue-applying pickers; G the glue-supply devices and H a label-holder for supporting a pack of labels L. All of said parts may be constructed and arranged to operate substantially as heretofore practiced, or in any suitable manner; but said parts are herein represented to more clearly show the relation of my present invention in its combination with the general parts of a labeling machine.

The prime feature of my present invention consists in providing a package-supporting rest of the character specified, with an automatically actuated means for clasping or clamping the package which is placed thereon, thereby securing or firmly holding the same while the label is being affixed thereto. The clamping means is preferably arranged to act against the package laterally, or approximately transverse to the direction in which the label-affixing devices move, and to hold the package in proper position while receiving the label, or labels; also to release the package when the labeling operation is completed or has advanced to a predetermined stage.

In the preferred construction for carrying out my invention in practice, the body of rest 1 comprises a bed or seat-member 2 of appropriate shape upon which the package P is laid; an integral rearwardly extending arm 3 on which the actuating members are fulcrumed or otherwise carried, and a bifurcated or slotted shank 4 for attachment to the projecting part *a* of the label-

ing machine frame. The various parts of the rest are best constructed and combined in a manner to be a self-contained assemblage, so that the holding rest can be readily put onto the labeling machine in place of the ordinary non-holding rest, or removed therefrom without change in the mechanism, otherwise than the release and securing of its attaching bolt. Combined with this seat member I provide package-clamping members 5 which, in the present instance, are made as upright movable side plates or jaws, that project above the plane of the seat 2, and are connected with the body portion at a suitable distance below the level of the seat surface by hinging members and joints 6, the pivot-axes of which are, in the instance illustrated, approximately parallel with each other, and with the central line of the seat. The clamping members 5 are provided with inwardly projecting fingers or lever portions 7 that terminate near each other, and have suitable bosses or surfaces thereon for contact with an overlying lever, depressor arm or actuative means 10. A spring 12 is arranged for normally retracting or spreading the clamping jaw, or side-plates 5 apart, and raising the finger projections 7 in opposition to the actuating means. Said spring is preferably a coiled wire pull-spring strained between opposite downwardly projecting arms or lugs 13 suitably formed upon the hinged clamping-plates or jaw-members. The actuator-arm or lever 10 is pivoted to a suitable part of the body, as at 14, and has its swinging end disposed adjacent to the fingers 7 of the side plates; said end being formed for acting upon both fingers simultaneously when the actuator is operated. Said actuator arm, as shown in Fig. 2, is combined with a second bifurcated operating lever 15 pivoted upon the stud or axis 14, and having its bifurcated ends connected by pull springs 16 to suitable lugs 17 on the sides of the actuator arm 10. The upper end of said lever 15 is best provided with a roller 19, and is disposed at a position for contacting with the label-gripping device D as the latter swings downward toward the bottle or package; or by special contact with any convenient moving part of the labeling machine for imparting similar action. Depression of the upper end of the lever 15 produces a strain on the springs 16 and effects a yielding depression of the fore end of the actuator arm 10 against the fingers 7 of the clamping-plates 5; causing said plates to move toward the package, which is laid upon the seat 2; thereby first bringing the package into proper straight or central relation for receiving the label and then firmly clamping and securing the package in position, immediately preceding the presentation of the label to the package, and retaining the latter in place while the label is being affixed thereon. When completed the clamp is released by the spring 12 as the label affixing appliances are retracted; the operation of the holding means being synchronous with the action of the label-affixing mechanism. The movement of the grip-device is indicated on Fig. 2 by dotted lines.

In Figs. 6, 7 and 8, I illustrate a modification of my invention adapted for holding cylindrical packages which stand upon the end, or diskwise. In this modification the seat member, or bed 2, is provided with an upright rim or guides 22, and the clamping jaw is formed as a two-pronged lever 20 fulcrumed at 24, and having its front ends 25 projecting above the bed, so as to clamp the package between said ends and the guide-rim 22 when the rear end of the lever is depressed. The means shown for actuating the package-holder comprises an upright pin 26 arranged within a suitable guide-socket 27 on the body of the rest, its upper end 29 at position for receiving the stroke of the label-grip-device or operator D, and its lower end impinging upon or connected with the jaw-lever 20, as indicated. A suitable spring 23 is provided for elevating the pin and releasing the hold upon the package when the pressure of the grip-device is raised therefrom.

In Figs. 9, 10 and 11 I have shown a modification having a rectangular box-shaped body, the seat 2, the rear end 31, and one side 32 being integral while the other side 35 is hinged thereto, as at 36, in a manner to close against the package and force it against the rigid side 32, for regulating its position for receiving the label, and retaining it in place. The actuator lever 30 is fulcrumed to an ear 34 fixed to the upper rear corner of the rest, and its lower arm is connected to a lug 33 on the movable member 35 by a spring 37. The retracting spring 38 is made as a pull spring and is strained from an arm or lug on the side-plate to a stud or lug fixed to the body. The top end 39 of the actuator lever is fitted and positioned for receiving the stroke of the grip-device thereon, for closing the clamp, or decreasing the space between the package-embracing side-plates 32 and 35, as will be readily understood.

By my invention, as adapted for centering and holding packages upon a labeling machine of the class specified; and by its employment in combination with a bottom-delivery label-holder, glue applying pickers, wiper mechanism and swinging grip-device, I am enabled to successfully label numerous kinds of packages or articles, and forms of packages, that could not otherwise be conveniently handled and labeled upon the labeling machine.

I am aware that mechanical changes in details and forms may be made in practic-

ing my invention, by those who are skilled in the art, without departing from the spirit and scope thereof, as expressed in the claims. I therefore, do not wish to be limited to the special forms of construction I have herein shown; but

What I do claim and desire to secure by Letters Patent, is—

1. In a labeling machine, including label-delivering and affixing mechanisms, and a label-gripping element for temporarily holding the label, a package holding rest comprising a stationary supporting seat and means for positioning and clamping the package thereon, said clamping means being actuated and controlled by the movement of said label-gripping element.

2. In a labeling machine of the class described, in combination with an overhead label supply, and label-affixing mechanism, a package-holding rest including a supporting seat for the package, and clamping means that acts against the package laterally, an actuator device therefor impelled by the label-affixing mechanism, for actuating said package-clamping means to firmly retain the package while being labeled, and means for relieving the clamping action to release the package when the label-affixing mechanism is retracted.

3. In a package-supporting rest for labeling machines, the combination with a supporting body comprising an attaching shank, and a stationary bed or seat whereon a package is primarily placed for receiving a label; of an automatically actuated side-clamping means located adjacent to said seat, for regulating the position of the package laterally thereon, in respect to the line of presentation of the labels for affixment thereto, and a projecting contact member and recoil spring whereby the movement of said regulating means is controlled when in operation.

4. In a mechanism for affixing labels to packages, bottles or the like, in combination with upwardly and downwardly acting means for gluing, delivering and affixing labels, and a label-grip mechanism; a package-holding rest comprising a supporting-seat, and a pair of oppositely movable holding members closable against the sides of a package for retaining said package upon said seat, an actuator-device that controls the inward movement of the holding members, and means operating in conjunction with the label-grip mechanism for imparting motion to said actuator and holding members.

5. In a labeling machine, in combination with label-applying mechanism, a supporting rest upon which the package or article to be labeled is placed; a pair of oppositely movable members arranged to uniformly approach a central plane for contacting with the sides of the package laid upon said rest, for centering and retaining said package in position while labeling, and means comprising a depressible contact member and spring devices for operating said holding members synchronously with and by the label-applying mechanism.

6. In a labeling machine, the combination, of a supporting-rest, movable package-holding means mounted on said supporting rest, a label-grip device, and intermediate means whereby movement is imparted from said label-grip device to said package-holding means.

7. In a labeling machine of the class described, in combination with labeling appliances including a label-gripping means, a package-holding rest comprising a seat or bed-member, a clamping member for retaining a package thereon; means actuated by the labeling appliances for controlling said clamping member to firmly retain the package while labeling it, said actuating means being brought into action immediately preceding the contact of the label-gripping action upon the label, and means for retracting said clamping member.

8. In a labeling machine of the class described, a label-affixing mechanism, a package-holding rest comprising a supporting means provided with oppositely movable jaw-devices hinged thereto, and having inwardly projecting finger-members that terminate adjacent to each other at a central position, a lever mounted on a transversely disposed fulcrum, and having an arm engaging with said finger members for depressing the same and uniformly closing said jaw-devices, a yieldably connected actuator for moving said lever, said actuator receiving motion from a moving part of the label-affixing mechanism, and a spring for opening said jaw devices.

9. In a labeling machine of the class specified, a stationary supporting rest for containing the package while being labeled, means for clamping the package thereon, a clamp-actuating means provided with a yielding-contact member, means for presenting the labels to the package, and a rocking arm that operates the clamp-actuating means synchronously with the presentation of labels to the package.

10. In a labeling machine of the class described, the combination with the overhead bottom-delivery label-holder, the glue-applying pickers that take the labels therefrom and present the same for affixment, a swinging grip-device and wiping-on mechanism; of a package-holding rest provided with a supporting seat, and a package-clamping means for retaining the package upon the rest, said clamping means being automatically actuated in conjunction with the label-affixing mechanism.

11. In a labeling machine, in combination with a label-holder, reciprocating glue-applying pickers, and a swinging grip-device; a package supporter provided with upright side members adapted for clamping the package laterally between them, means for varying the space between said side members, including an actuator lever pivotally carried thereon and adapted for contacting with the swinging grip-device, a yielding connection for said actuator, and a resilient retracting means for spreading the package-holding space when the grip-device is elevated.

12. In a labeling machine of the class described, the combination with label-delivering means, wiping-on mechanism and label-gripping means; of a package-holding rest provided with movable package-adjusting members, and means for operating said package-adjusting members actuated in conjunction with the label-gripping means and effecting regulation of the position of the package to receive the label, and for holding the package secure upon the rest.

13. A package-holding rest, comprising a body-bracket consisting of a seat portion, an attaching shank, a rearwardly projecting arm and lateral hinge members, in combination with upright side-plates pivoted to said hinge members and standing adjacent to said seat portion, a plate-moving lever, a retracting spring, and an actuator means carried upon said body and adapted for contact with a moving part upon a labeling machine, said holding rest being bodily attachable and detachable in respect to the labeling machine frame.

Witness my hand this 20th day of July 1910.

FRANK O. WOODLAND.

Witnesses:
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