F. O. WOODLAND.

LABELING MACHINE.

APPLICATION FILED MAY 1, 1908.

940,105. Patented Nov. 16, 1909

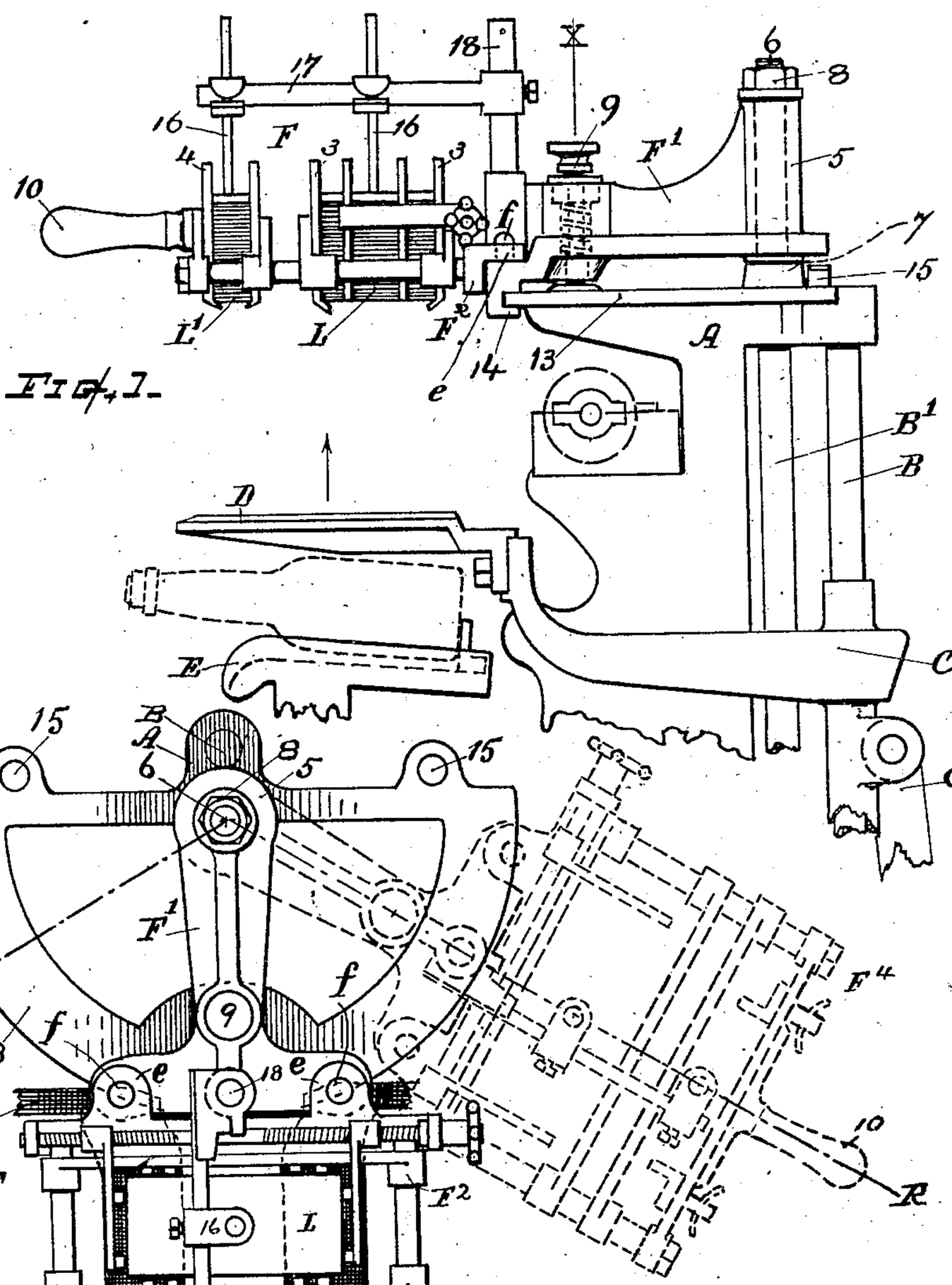

Fig. 1.

Fig. 2.

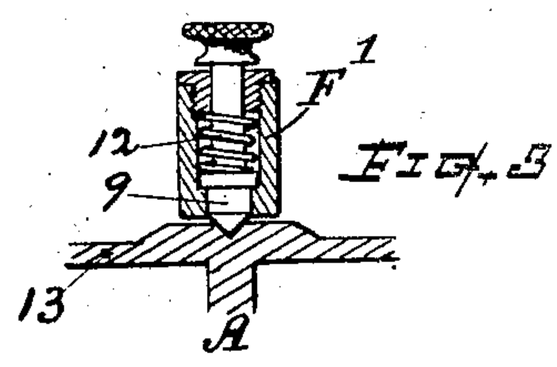

Fig. 3

Witnesses-

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FRANK O. WOODLAND, OF WORCESTER, MASSACHUSETTS.

LABELING-MACHINE.

940,105. Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed May 1, 1908. Serial No. 430,301.

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 Improvement in Labeling-Machines, of which the following is a specification, reference being made therein to the accompanying drawings.

My present invention relates to label-holding and delivering means and the combination thereof with coacting parts in a bottle-labeling machine, in such manner that the label-holder with the pack, or packs, of labels supported thereon can be shifted out of action, laterally in the plane of the labels, or at any time swung aside by the attendant; the object being to provide a convenient method for taking the pack, or packs, of labels temporarily out of alinement with the reciprocating pickers, while affording a structure that maintains the label-holder in its normal plane in relation to the supporting frame.

Another object of my invention is to provide a laterally shiftable label-holder with means for manually shifting it to one side, and an automatically acting catch-device for centering and retaining the label-holder at its normal working position.

I attain these objects by mechanism, the structure and mode of operation of which are hereinafter more fully described; the particular subject matter claimed being definitely set forth.

In the drawings, Figure 1 represents a side view of such parts of a bottle-labeling machine as will illustrate the nature of my invention. Fig. 2 is a plan view of the label-holder, shown in full lines at working position, and the lateral movement thereof indicated by dotted lines; and Fig. 3 is a section at line X on Fix. 1, illustrating means for retaining the label-holder at central or normal position.

It will be understood that the invention herein set forth can be applied to and employed in bottle-labeling machines of any suitable character; and that the parts of the labeling machine which are not herein shown and particularly described can be of the usual well known or any approved construction.

Referring to the drawings, A denotes the supporting frame, only a part of which is herein shown; B indicates the picker guide and B^1 the wiper guide; C indicates the picker-carrier which is reciprocally moved up and down upon the guide B by suitable actuating means connected therewith, as at c^1.

D indicates the glue-applying pickers, E the bottle-rest or supporter, which in practice is attached to a stationary part of the frame; and F the label-holder, which in the present instance comprises a supporting member or carrier arm F^1 and a detachable body member or frame F^2 provided with adjustable sets of guide stakes 3 and 4, or means for supporting a pack, or packs, of labels L, L^1, in a manner for the delivery of single labels from the pack, or several packs, to the pickers when the latter are elevated into contact therewith. The label-holding section or body member F^2 is best detachably united with the carrier-arm F^1 by suitable inter-engaging studs and eye-lugs respectively formed on the carrier and the body member, and adapted to permit of the label-supporting section or body member being lifted off or replaced at will. In the present instance the studs *f* are uprightly fixed in the laterally broadened lower fore part of the carrier-arm F^1 and the eye-lugs *e* are formed upon the rear part of the holder-section and adapted to latch onto said studs with a close but readily releasable engagement.

The pickers D can be made of any suitable form, and mounted upon the picker-carrier as heretofore employed. They are moved up to the label-holder for taking a label, or labels, therefrom and then moved down to a position above the bottle-rest for presenting the label ready for its affixment to the bottle lying upon said rest E; the affixment being effected by suitable wipers which are not herein shown, but as will be fully understood by those conversant with the art.

As a feature of my invention the label-holder F is arranged to be swung laterally and bodily out of alinement with the pickers D for the temporary interruption of the label-feed, while the other parts of the machine may be in full operation. The arm or carrying member F^1 of the label-holder is united to the frame A by a pivoting joint which, in the present instance, consists of an upright pintle 6 fixed in the frame A, and a bearing sleeve 5 formed on the member F^1 that fits over said pintle; the bottom end of the sleeve seating upon an annular shoulder at 7, and the holder maintained in its established plane and against elevative

movement by a nut 8 threaded upon the top end of the pivot 6, or by other suitable fastening means that retains it from lifting while permitting easy lateral swing of the label-holder about the pivot. A yieldable catch-device 9 is provided for engaging the parts when the holder is at central or working position, and a handle 10 is provided upon the front, or some convenient portion of the label-holder, whereby the label-holding devices can be manually swung to one side whenever it is desired, and again returned to place without changing the plane of the labels; the catch device yielding automatically when sufficient lateral pressure is applied to the handle to overcome the resistance of the spring 12.

There is preferably provided upon the frame A a rigid semicircular guide 13 corresponding with the lateral movement of the holder mechanism, and a notch and lip 14 is provided upon the label-holder frame that embraces and moves upon said guide for maintaining the parts in the same relative plane while swung either to the right or left. This semicircular guide may not in all instances be used, but in double labelers, where there is considerable length from the pivot to the front of the label-holder, it is desirable to employ the semicircle and under locking lip, as it prevents undue springing of the overhanging parts. Studs or stop devices 15 can be arranged at the ends of the semicircle 13, for arresting the lateral swing movement of the label-holder at a predetermined limit. The label-holder may be arranged to swing to the right, or to the left only, if in any instance so desired; or it may be arranged to swing in both right and left direction, as in the present illustration, indicated by lines R and S on Fig. 2.

The resisting followers 16 and their supporting bar 17 and guide standard 18 are carried upon the pivoted arm F^1, so as to move laterally in unison with the label-holder without changing their relation with respect to the packs of labels.

In the operation; whenever it is desired to run the machine for a temporary interval without feeding labels thereto, as when first starting the glue feed, for primarily coating the pickers, the attendant can readily shift the label-holder to one side, as per dotted lines F^4, Fig. 2, thus carrying the pack, or packs, of labels supported thereon laterally out of alinement with the pickers. He can likewise swing it back to working position while the machine is in motion.

In a prior application for Letters Patent I have described means for lifting the label-holder beyond the reach of the pickers in the direction of the picker movement; and in another application have disclosed means for arresting the picker movement before the pickers reach the plane of the label-holder; but the present invention relates essentially to the relief of the label-feed by a sidewise or lateral movement of the label-holder, approximately transverse to the direction of the picker movement.

By arranging a label-holder to have laterally swinging displacement, the label holder can be firmly supported against undue yielding in a direction perpendicular to the plane of the labels; and furthermore it affords a simple and convenient means for stopping and starting the label-feed, readily at the hand of the operator for manually accomplishing the desired object.

I am aware that in practice some changes in the embodiment of the invention may be made by those skilled in the art, or to conform with different styles of labeling machinery, without departing from the nature of my invention as defined in the claims. I do not wish, therefore, to be limited to the special form in detail, shown.

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

1. In a labeling machine, in combination with means for supporting a bottle, means for affixing a label thereto, and glue-applying pickers that take the labels from the supply-holder and present them at position for affixment, a laterally displaceable label-holder, and means for effecting a sidewise movement thereof for temporarily displacing the label-holder out of feeding contact with the pickers.

2. In a labeling machine, a reciprocating picker-carrier with glue-applying pickers thereon, a label-holder for supplying labels to said pickers, and means for shifting the label-holder laterally to carry the labels thereon transversely from or into the path of the picker.

3. In a labeling machine, in combination with a reciprocating picker-carrier having glue-applying pickers mounted thereon, a bottom-delivery label-holder adapted for supporting a pack of labels from which labels are taken singly by said picker; a pivotal connecting means for supporting said label-holder which permits a lateral swing movement thereof for shifting the label pack laterally from and into alinement with the pickers.

4. In a bottle-labeling machine, a label-holder comprising a carrying member pivotally connected with the supporting frame to have a lateral swinging movement, and a label-holding section or body member detachably connected with said carrying member, and provided with sets of guides for sustaining a pack, or packs, of labels thereon, with the plane of the labels parallel with the plane of the swinging movement, and means for swinging said label-holder sidewise from its normal position.

5. In a labeling machine the combination, of a bottle-supporting means, a set of vertically reciprocating glue-applying pickers, a non-lifting laterally movable label-holder, means for temporarily shifting said label-holder transversely from the path of the pickers, and an automatically releasable catch-device for retaining said label-holder at its normal working position.

6. In a labeling machine, the combination, of a stationary bottle-supporting rest, a set of reciprocating glue-applying pickers, a bottom-delivering label-holder normally positioned above the bottle-rest and pickers, and adapted for supporting a pack, or packs, of labels from which labels are taken by said pickers, a pivoting member connecting the label-holder and its support, and a manually controlled means for swinging the label-holder laterally, approximately in the plane of the labels.

7. In a bottle-labeling machine, a label-holder provided with sets of guide stakes for retaining a pack, or packs, of labels thereon for bottom delivery of labels therefrom, means connecting said label-holder with the supporting frame to afford lateral swinging movement, and follower devices for the several packs of labels, said follower devices carried upon the swinging part of the label-holder, and a yieldable spring-catch for retaining the label-holder at a predetermined position.

8. In a bottle-labeling machine, a laterally swinging label-holder provided with means for supporting a pack, or packs, of labels thereon, a semicircular guide in plane with the lateral swinging movement, an engaging lip movably confining the swinging label-holder to said semicircular guide, and a spring-pressed catch device for yieldably retaining said label-holder at working position.

9. In a bottle-labeling machine a laterally swinging label-holder provided with means for sustaining a pack, or packs, of labels thereon for bottom delivery of labels from the pack, a pivot axially perpendicular to the plane of the labels, connecting the label-holder mechanism with the supporting frame, means for preventing movement of the holder endwise of said pivot, stop-devices for limiting the lateral swing movement at predetermined positions, and an automatically releasable locking device for retaining the label-holder at working position.

Witness my hand this 29th day of April, 1908.

FRANK O. WOODLAND.

Witnesses:
CHAS. H. BURLEIGH,
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