No. 687,900. Patented Dec. 3, 1901.

W. E. PETTEE.

LABELING MACHINE.

(Application filed Sept 21, 1898.)

(No Model.) 2 Sheets—Sheet 1.

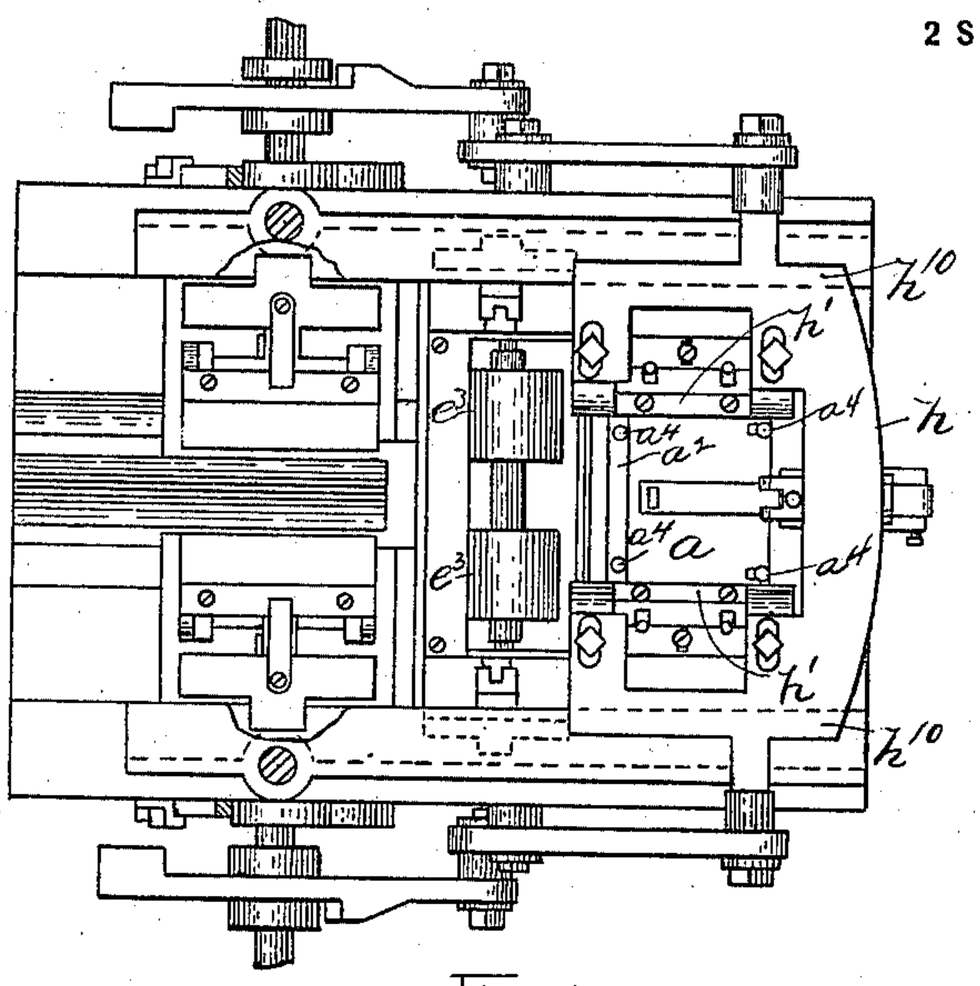
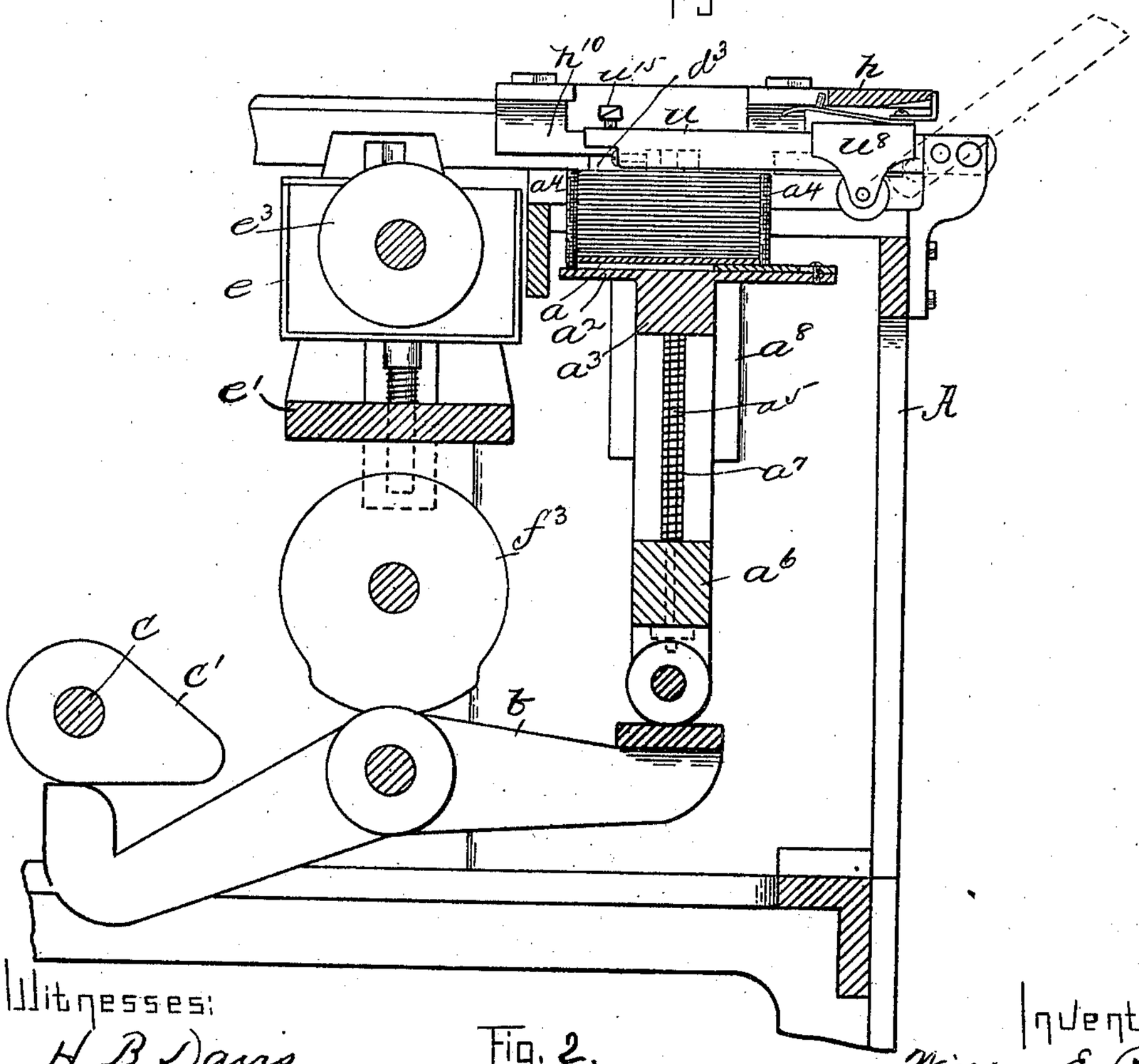


Fig. 1.



Witnesses:
H. B. Davis
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Fig. 2.

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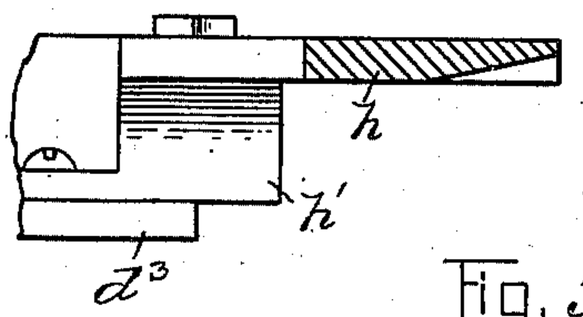
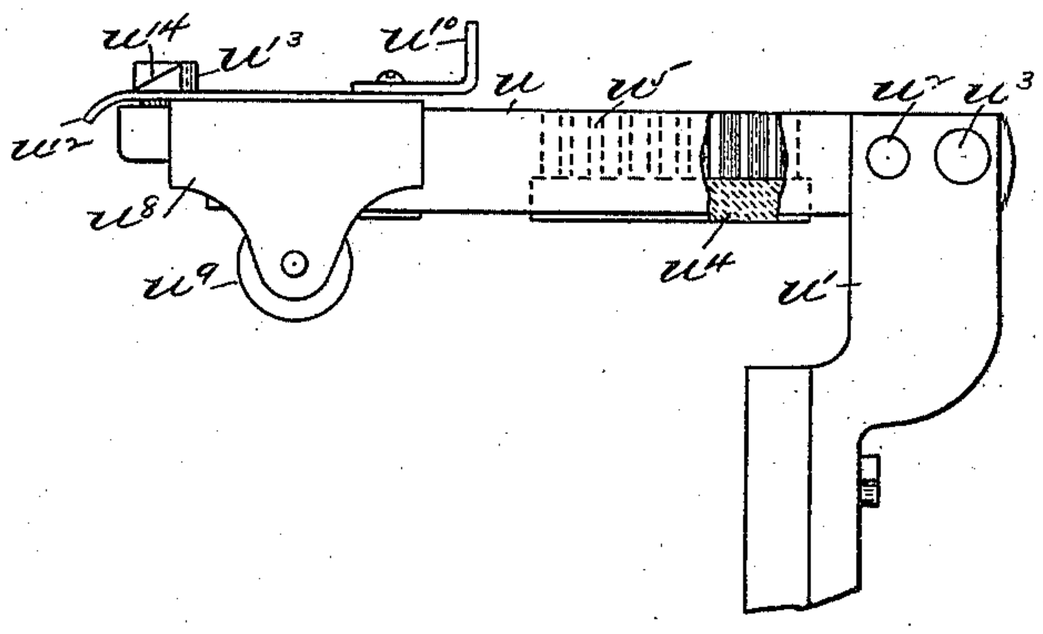


Fig. 3.



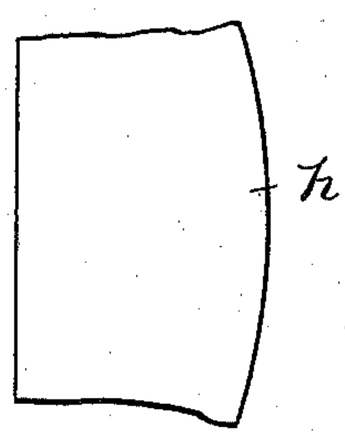
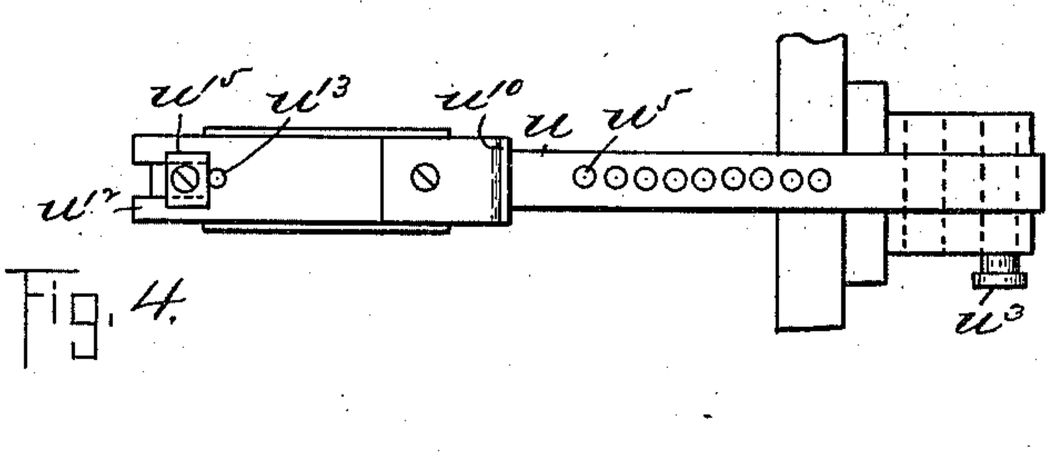


Fig. 4.



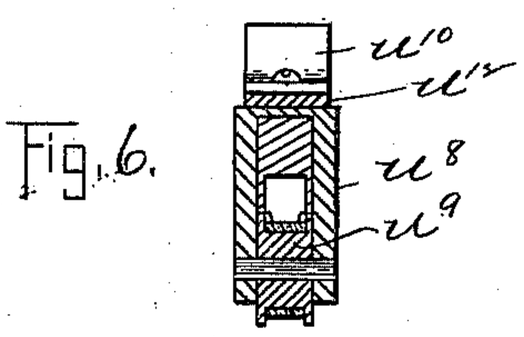


Fig. 6.

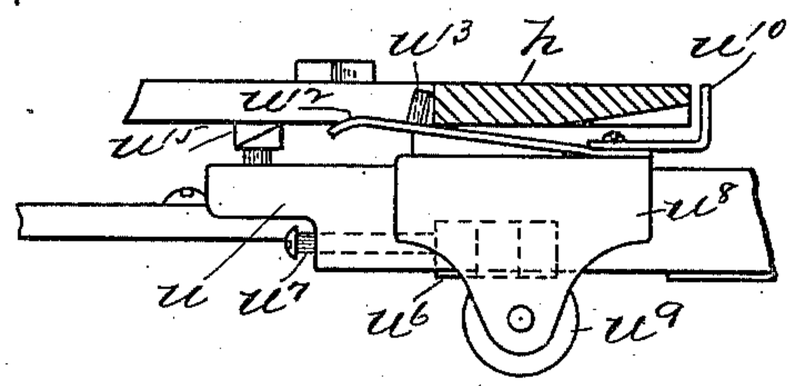


Fig. 5

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Atty

UNITED STATES PATENT OFFICE.

WILLIAM E. PETTEE, OF BOSTON, MASSACHUSETTS.

LABELING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 687,900, dated December 3, 1901.

Application filed September 21, 1898. Serial No. 691,531. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. PETTEE, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Labeling-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object to provide a labeling-machine with a printing device whereby a date or other printing character or characters may be printed on the labels and with an inking device for said printing device, and the invention is herein shown as an attachment applied to the labeling-machine shown and described in United States Patent No. 597,858, granted to me January 25, 1898. The machine shown in said patent has a label-holder adapted to contain a pile of labels, and said labels may and preferably are arranged in said label-holder bottom side up, and a label-conveyer is provided which is adapted to take the uppermost label of the pile and carry it forward into position to be applied, and said label-conveyer has a pair of label-receiving shoes which are located a suitable distance apart. A pasting device is provided and the parts are so arranged that as the label-conveyer travels rearward to obtain the next label its shoes will become coated with paste and when it arrives in position above the pile of labels its shoes, which are coated with paste, will pick off the uppermost label of the pile, and in so doing will apply a single line of paste to each side or edge of said label, leaving the middle portion of said label unpasted between said two lines of paste. The label-conveyer thus bearing a single label then travels forward, conveying said label to a position to be applied or affixed.

The printing device which forms the essential feature of the present invention comprises an arm or other support, bearing the type which will be changeable, and in applying said printing device to the particular machine above referred to it will be located at the rear side or end of the machine and in such position that the type shall occupy a position above the pile of labels contained in the label-holder and between the label-receiving shoes of the label-conveyer when the latter is in its rearmost position, with its shoes above the pile of labels. In the machine referred to the label-holder is operated to thrust the uppermost label of the pile into engagement with the shoes of the label-conveyer, and when so operated the said uppermost label of the pile will also be brought into engagement with the type of the printing device and will be printed. If the labels are contained in the label-holder bottom side up, then the date will be printed on the under side of the labels, which is preferable, as in such case the label thus dated may be used for reference in settlement of disputes arising as to the date the goods were bottled and the labels applied. I do not, however, desire to thus limit my invention. An inking device is provided for said printing device which is movable into and out of engagement therewith, and said inking device is herein shown as operated by the label-conveyer.

Figure 1 shows in plan view a labeling-machine having a printing device and inking device embodying this invention applied thereto. Fig. 2 is a vertical section, enlarged, of a sufficient portion of the machine shown in Fig. 1 to illustrate my present invention, the parts being in the position that they will occupy when printing the labels. Fig. 3 is a side view of the printing device and inking device, showing the parts in the position that they will occupy when the inking device is applying ink to the type. Fig. 4 is a plan view of the printing device and inking device as shown in Fig. 3. Fig. 5 is a side view of the printing device and inking device, showing particularly the means for moving the inking device. Fig. 6 is a sectional detail of the inking device.

The label-holder, comprising the plate a, upon which a pile of labels may be placed, adjustably supported above a plate a^2, which is formed integral with or placed upon a cross-bar a^3, vertical pins a^4 at the sides of said plate a, which form guides for the pile of labels, the vertical pins a^5, projecting downward from said cross-bar a^3, the yoke or frame a^6, down through which said pins pass, the spiral springs a^7, encircling said pins a^5, the upper ends of which bear against the cross-bar a^3 and the lower ends against the yoke or frame a^6, the vertical guideways a^8, in which said yoke or frame a^6 slides, the pivoted le-

ver b, by means of which vertical movement is imparted to the label-holder, a cam c', secured to the shaft c for operating said pivoted lever b; and the pasting device, comprising the paste-box e, frame e', supporting it, adapted to slide in vertical guideways provided for it, rolls e^3 e^3, contained in said paste-box, and the cam f^3 for raising said paste-box; and the label-conveyer, consisting of an open frame composed of the cross-piece h and guide-pieces h^{10} h^{10} at each end thereof, plates h' h', attached to said frame in an adjustable manner by screws at each side of the opening thereof, and shoes d^3 d^3, attached to the under sides of said plates h' by screws 2 or otherwise, are all as in the patent above referred to, to which reference may be had.

The label-conveyer when in the position shown in Fig. 2 presents its shoes d^3 just above the pile of labels, and as the label-holder is raised the uppermost label of the pile will be pressed into firm contact with said shoes d^3, after which said label-holder descends and the label-conveyer travels forward, bearing the single label thus removed from the pile to present said label to the affixing or applying device. The label-conveyer then returns, and on its return movement the paste-box will be raised at the proper time to bring its rolls e^3 into position to be engaged by the shoes d^3 d^3, and said shoes will receive therefrom a coating of paste, so that when the label-conveyer arrives at its rearmost position to receive the next label of the pile its shoes will be coated with paste to not only enable them to pick off the uppermost label of the pile, but also to apply to the label thus removed two lines of paste, one at each side or edge thereof, leaving the middle or that portion thereof between said two lines of paste unpasted.

The labels are arranged in the label-holder bottom side up, so that the two lines of paste will be applied to the under sides of the labels.

The printing appliance is herein shown as adapted to print the date on the same side of the labels as the two lines of paste are applied, so that when the labels are applied the date will be concealed.

u represents an arm which is attached at its rear end to the upper end of a bracket u', which is secured to the framework A of the machine, said arm being herein represented as pivoted at u^2 to said bracket u' and as provided with a locking-pin u^3, by means of which it is held fixed in horizontal position. By removing said locking-pin the arm may be raised on the pivot-pin u^2. The arm u has formed in its under side a groove or recess in which is placed a long strip of felt u^4 or equivalent material, which is adapted to be saturated with ink, and a number of holes u^5 pass down through said arm u above said groove or recess, which allow or permit ink to be delivered to the felt. Another groove is also formed or provided in the under side of said arm u, which receives the type u^6, said type being held securely in place by a set-screw u^7. The type may of course be changed at will. The arm u is made long enough to extend over the pile of labels contained in the label-holder, as represented in Figs. 1 and 2, so that as the label-holder is elevated the uppermost label of the pile will be brought into firm contact with the type u^6 and the date thus printed on the label. The arm u is located substantially midway between the shoes d^3 d^3 of the label-conveyer, (when said label-conveyer is in its rearmost position.) Consequently the date will be printed upon the label between the two lines of paste.

u^8 represents a carriage which travels along on the arm u, and said carriage bears an inking-roll u^9, preferably rubber-covered, which is adapted to receive ink from the saturated strip u^4 and convey or transfer it to the type. The sliding carriage u^8 has a vertical projection u^{10}, which may be made as a short arm attached to the top of the carriage and bent upward, and said projection lies in the path of movement of the cross-piece h of the label-conveyer, so that as said label-conveyer travels rearward it will strike said projection u^{10} on the carriage and will move said carriage rearward from the position shown in Fig. 3, where it will be seen the type is being inked, to the position shown in Fig. 2, where it will be seen the inking-roll is receiving a fresh supply of ink from the saturated strip u^4 for subsequent delivery to the type. The carriage u^8 also has secured to it a spring acting or yielding plate u^{12}, which is formed or provided with a vertical pin u^{13} or equivalent projection near its outer or free end, and said pin u^{13} is normally held by said spring u^{12} in an elevated position, (see Fig. 5,) so that as the label-conveyer moves forward, bearing one of the labels to a position to be applied, its cross-piece h will engage said pin u^{13} and will draw the carriage u^8 along on the arm u in a direction opposite to that previously described. As the carriage is thus drawn along by the engagement of the cross-piece h and pin u^{13} the outer or free end of the spring u^{12} soon engages a cam-like or oblique surface u^{14}, formed on a stud u^{15}, rising from the arm u at or near its outer or free end, and the spring u^{12} is thus depressed sufficiently to remove the pin u^{13} from its engagement with the cross-piece h, at which time the label-conveyer will continue its forward movement independently. In Fig. 3 the carriage is represented in this position with the spring u^{12} depressed by means of the oblique surface u^{14}, and the inking-roll borne by it will at such time have supplied the type with ink. As the label-conveyer returns its cross-piece h will pass over the stud u^{15} and pin u^{13}, and in continuing its rearward movement will again strike the projection u^{10} and move rearward the carriage u^8 into the position shown in Fig. 2, and during such rearward movement of the car-

riage the spring u^{12} will be withdrawn from its engagement with the oblique-faced stud u^{15} and its pin u^{13} will be brought into engagement with the cross-piece h, as represented in Fig. 5. Thus it will be seen that the inking device is moved back and forth by a label-conveyer without the necessity of providing an independent operating device for it. I desire it to be understood, however, that many ways may be devised for carrying out the details of construction of my present invention without departing from the spirit and scope thereof, so that I do not desire to limit my invention to the particular construction herein shown.

I claim—

1. In a labeling-machine, a label-holder for holding a pile of labels, a printing device located above the pile of labels and an inking device for said printing device movable into and out of engagement therewith, substantially as described.

2. In a labeling-machine, a label-holder for holding a pile of labels, a printing device located above the pile of labels and an inking device for said printing device, a label-conveyer for taking the uppermost label of the pile and conveying it to a position to be applied, having means for operating said inking device, substantially as described.

3. In a labeling-machine, a label-holder for holding a pile of labels, a label-conveyer having a pair of shoes, and means for applying paste to said shoes, combined with a printing device located above the pile of labels between said shoes, and an inking device for said printing device movable into and out of engagement therewith, substantially as described.

4. In a labeling-machine, a label-holder for holding a pile of labels, a label-conveyer having a pair of shoes, means for applying paste to said shoes, combined with an arm disposed between said shoes bearing type, and also bearing an inking-pad, a sliding carriage on said arm bearing an inking-roll, and means for moving said carriage back and forth to transfer ink from the inking device to the type, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM E. PETTEE.

Witnesses:
B. J. NOYES,
H. B. DAVIS.