May 6, 1930. C. H. OSLUND 1,757,209

LABEL DATING DEVICE

Filed May 11, 1929 2 Sheets-Sheet 1

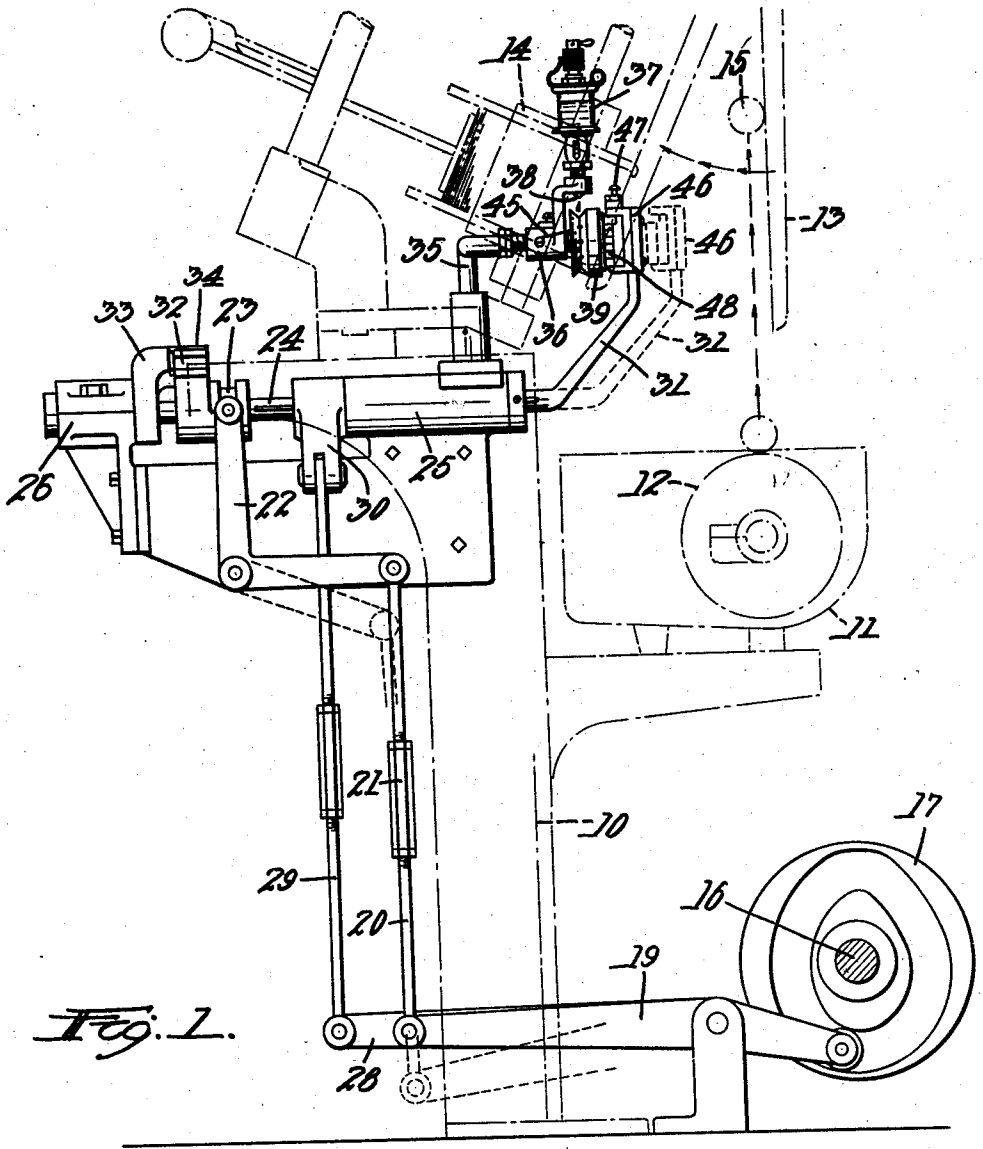


Fig. 1.

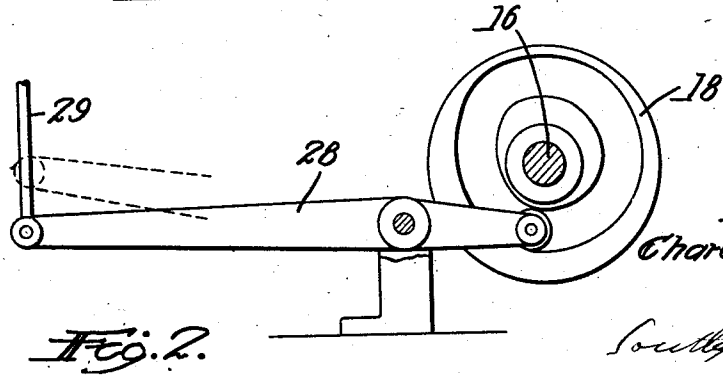


Fig. 2.

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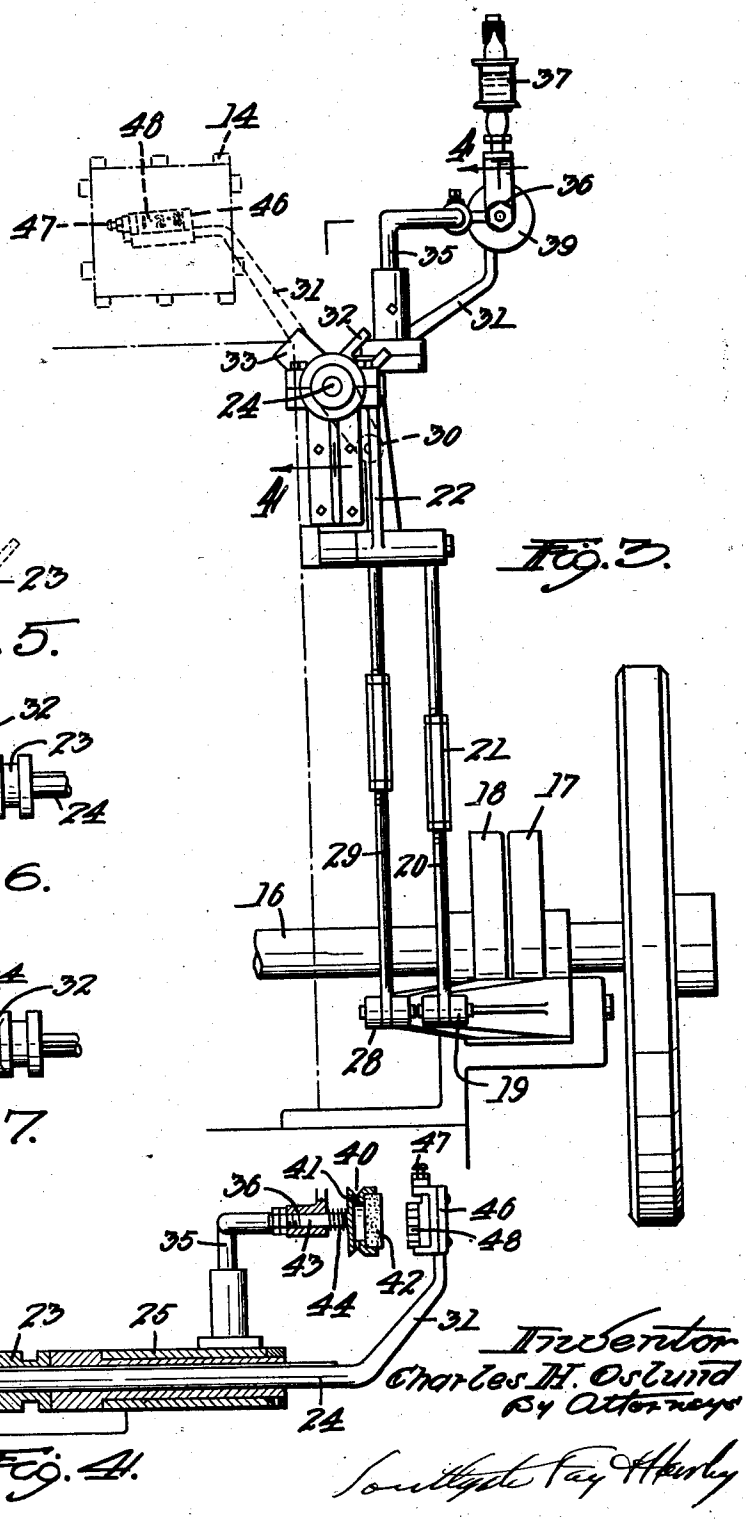


Fig. 3.

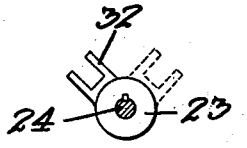


Fig. 5.

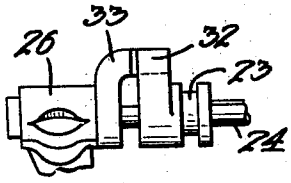


Fig. 6.

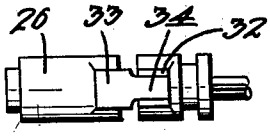


Fig. 7.

Fig. 4.

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UNITED STATES PATENT OFFICE

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LABEL-DATING DEVICE

Application filed May 11, 1929. Serial No. 362,359.

This invention relates to a device for dating labels placed on cans, bottles or the like and the principal objects thereof are to provide means for applying the date or a code number on the back of the label, where it is not to be gummed preferably, and where it will not be seen by anyone unless the label is taken off the article or the gum softened up on the back; also to provide means, timed with the operation of the picker fingers, whereby the date is stamped on the back of the label, preferably as it is in the holder and at the time when the picker fingers move over the table to affix the previous label to the container; to provide means for swinging the dating stamp into position to register with the inking pad and for swinging it into position to register with the labels in the holder; to provide means for moving the stamp longitudinally against the pad and against the holder; to provide means for turning the pad so that the ink will be distributed on it uniformly and to provide means whereby the printing or dating device will be held against vibration or chattering while it is applying the date to the label.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings in which

Fig. 1 is an end view of a part of a labeling machine showing a preferred embodiment of this invention applied thereto;

Fig. 2 is a similar view of the lower part of the same showing a different position of the parts;

Fig. 3 is an edge view of the printing mechanism at right angles to the plane of Fig. 1;

Fig. 4 is a sectional view on the line 4—4 of Fig. 3;

Fig. 5 is an end view of the steadying device for the dating stamp;

Fig. 6 is a side view of the same showing its co-action with the dating device, and

Fig. 7 is a plan thereof.

It is often desirable for bottlers and manufacturers of food products to be able to ascertain the age of their product or to determine the batch or lot in which it was made. It is also desirable that a mark shall be placed in a position where it does not disclose any information to the consumer or to the dealer but can be made plain to the manufacturer whenever desired.

This is accomplished according to the present invention by means which does not add anything to the cost of labeling or delay it in any way. For the purpose of accomplishing the objects mentioned above the labeling machine 10, which may be of any type, is shown as provided with a paste pot 11, gumming cylinder 12, pickers 13, label holder 14 and gumming roll 15. These parts may be mounted and connected with each other in any of the usual ways. I have illustrated herein one of the common ones.

This machine is provided with a main shaft 16 having connections (not shown) for operating the gumming cylinder, gum rolls and pickers. On this shaft are two cams 17 and 18. The double cam 17 operates a lever 19 which, by means of a rod 20 which can be shortened and lengthened by a turn buckle 21, actuates a bell crank 22. This bell crank, by means of a yoke or grooved collar 23, slides a shaft 24 in its bearings 25 and 26. The two extreme positions of this shaft are indicated in full and dotted lines in Fig. 1. It will be seen that for each rotation of the shaft 16 this shaft is moved out and in twice.

The single cam 18 actuates a lever 28 which, by means of an adjustable rod 29, swings an arm 30 in which the shaft 24 is keyed. Therefore it will oscilllate this shaft irrespective of its longitudinal position. The result is that this shaft can swing so that an offset arm 31 constituting the end of the shaft will move from the full line to the dotted line position shown in Fig. 3.

On the shaft 24, as has been stated, is fixed the collar 23 and this is provided with a steadying bifurcated arm 32. This collar being fixed on the shaft, this steadying arm will swing back and forth to the two positions shown in Fig. 5. On the bearing 26 is fixed projection 33 which has a longitudinal bar 34 adapted to be surrounded by the slot on the arm 32 at a certain time for the purpose of steadying the arm 31.

Fixed on the bearing 25 is an upright piece 35 having a horizontal sleeve 36 adjustably fixed thereto. This sleeve extends upwardly and carries an ink cup 37 which need not be described in detail as it is made like an ordinary oil cup designed to drip the ink from a nozzle 38 down on an inking member 39. This inking member is provided with a V-shaped groove 40 for receiving the ink. This groove is provided with perforations 41 through which the ink oozes into a recess in which is an ink pad 42 for taking up the ink. This ink pad will then be constantly and uniformly inked by this means. The ink pad is supported on a horizontal rod 43 which slides in the sleeve 36. A spring 44 between the end of this sleeve and the back of the ink device 39 normally forces the pad outwardly. On the sleeve 36 is fixed a spring 45 which is arranged in an angular position and engages the rear surface of the inking member 39 so that whenever this ink pad is forced back the spring will have to yield and will turn this inking member 39 a short distance like a ratchet. Thus at each operation the ink pad is located in a different position and the ink dripping from the inking device 37 will be evenly distributed and also a different part of the pad will be presented to the dating stamp with each operation.

The dating stamp simply constitutes a holder 46 mounted on the arm 31 and provided with one or more screws 47 by which type or the like 48 may be clamped in the holder. In this way the type can be changed every day if desired to give a different date and it will be understood that the date can be in code if desired.

The operation of the machine will be understood from what has been stated. As the shaft 16 rotates, the gumming roll 15 moves down and engages the gumming cylinder 12 and then sweeps across the front surfaces of a pair of pickers 13. Now the pickers 13 come up and engage the front label in the holder to apply two strips of paste along or near the two opposite edges of the front label and take it out of the holder and to the vertical position shown in Fig. 1 where the label is applied to the bottle or other container. These features are well known in labeling machines.

As the shaft 16 rotates through a complete revolution the lever 19 is operated twice to reciprocate the shaft 24 and therefore the dating stamp twice. Also once during each revolution of the shaft 16 the lever 28 is actuated to swing the dating stamp out and in. Therefore the operations occur as follows: The pickers take the label out into a position to encounter the bottle. The bell crank 22 moves the dating stamp inwardly against the front label in the holder to date the back thereof. Then the shaft 24 moves outwardly to the dotted line position in Fig. 1. Just then the cam 18 swings the dating stamp back to the full line position in Fig. 3 in registration with the inking pad. The pickers again come up and take the label off to attach it to the container. Now the cam 17 moves the shaft 24 back to the full line position in Fig. 1 and then out again to the dotted line position. Thus ink is applied to the dating stamp. This operation moves the inking pad back against the spring 45 and then moves it forward again to release it which causes the inking pad to turn a step.

As the shaft 24 moves back to the left when the dating stamp is to apply the date of the label, the bifurcated arm 32 comes into registration with the projection 34 and prevents any vibration of the shaft 31 at the time of printing. This action does not occur during the inking of the type as it is not so essential at that time.

It will be observed that now the stamp is inked again and ready to go through the operations above specified. The label is dated on its gummed side but not in the gummed area, the printing or dating mechanism is held against chattering or vibration during the dating operation, the inking pad is turned at each operation so as to distribute the ink evenly and yet no time is taken from the period required for labeling and there is no cost added to the operation of the machine. The date on the label cannot be seen unless the label is taken off the container or loosened at one side and turned back.

Although I have illustrated and described only one form of the invention, I am aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore, I do not wish to be limited in this respect, but what I do claim is:—

1. In a dating device for a labeling machine, the combination with a label holder, of an ink pad, a dating stamp, means for moving the dating stamp against the ink pad longitudinally, means for swinging the dating stamp away from the ink pad and into alignment with the holder, and means for then moving the dating stamp forward against the front label in the holder and for then moving it back, said swinging means then acting to move the dating stamp back into registration with the ink pad.

2. In a dating device for a labeling machine, the combination with a label holder, of an ink pad, a dating stamp, means for moving the dating stamp against the ink pad, means for moving the dating stamp into alignment with the holder, and means for then moving the dating stamp against the front label in the holder.

3. In a dating device for a labeling ma-

chine, the combination of an ink pad, a support for the ink pad, yielding means between the ink pad and the support by which the ink pad is forced outwardly after it is moved toward the support, means for turning the ink pad when the ink pad is moved back and forth and a dating stamp movable against the ink pad to be inked and thereby moving the ink pad back to turn it.

4. In a dating device for a labeling machine, the combination of an ink pad, means for dropping ink thereon, a stationary support for the ink pad, yielding means between the ink pad and the support by which the ink pad is forced outwardly after it is moved toward the support, a slanting spring on the support engaging the ink pad to turn it when the ink pad is moved back and forth and a dating stamp movable against the ink pad to be inked and thereby moving the ink pad back to turn it.

5. In a dating device for a labeling machine or the like, the combination with the main shaft of the labeling machine, of two cams on said shaft, a reciprocable shaft, a dating stamp carried by said shaft, means controlled by one cam for reciprocating said stamp and means operated by the other cam for swinging the dating stamp on the axis of its shaft, and an inking pad located in position to register with the dating stamp when in one of its extreme positions.

6. In a dating device for a labeling machine or the like, the combination with the main shaft of the labeling machine, of two cams on said shaft, a double cam and a single cam, a reciprocable shaft, a dating stamp carried by said shaft, means controlled by the double cam for reciprocating said stamp twice during a revolution of the main shaft, means operated by the single cam for swinging the dating stamp on the axis of its shaft once during each revolution, an inking pad located in position to register with the dating stamp when in one of its extreme positions and a label holder in position to register with the dating stamp in another extreme position.

7. In a dating device, the combination with a label holder, of a slidable oscillatory shaft having an arm projecting therefrom and a dating stamp on the arm, means for reciprocating said shaft, means for swinging it into and out of alignment with the label holder so as to stamp the front label therein, and registering elements adapted to coincide when the shaft is drawn back for the purpose of impressing the stamp on the label, whereby the arm is prevented from vibration while printing.

8. In a dating device, the combination with a label holder, of a slidable oscillatory shaft having an arm projecting therefrom and a dating stamp on the arm, means for reciprocating said shaft, means for swinging it into and out of alignment with the label holder so as to stamp the front label therein, a bifurcated arm fixed on the shaft and a fixed projection in position to enter the arm between its bifurcations when the shaft is drawn back for the purpose of impressing the stamp on the label, whereby the arm is prevented from vibration while printing.

In testimony whereof I have hereunto affixed my signature.

CHARLES H. OSLUND.