L. A. HAWTHORNE.

LABEL DATING MACHINE.

APPLICATION FILED AUG. 31, 1917.

1,280,218.

Patented Oct. 1, 1918.

2 SHEETS—SHEET 1.

Fig. 2.

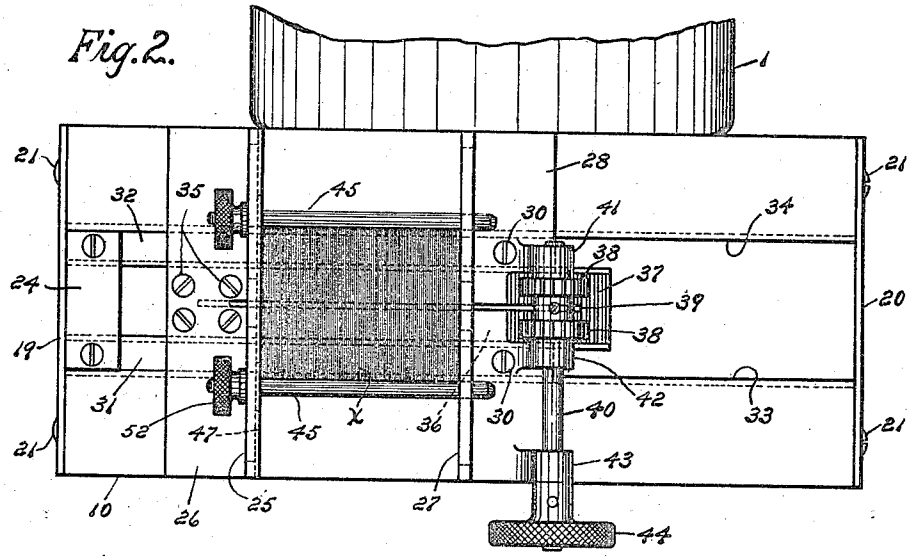
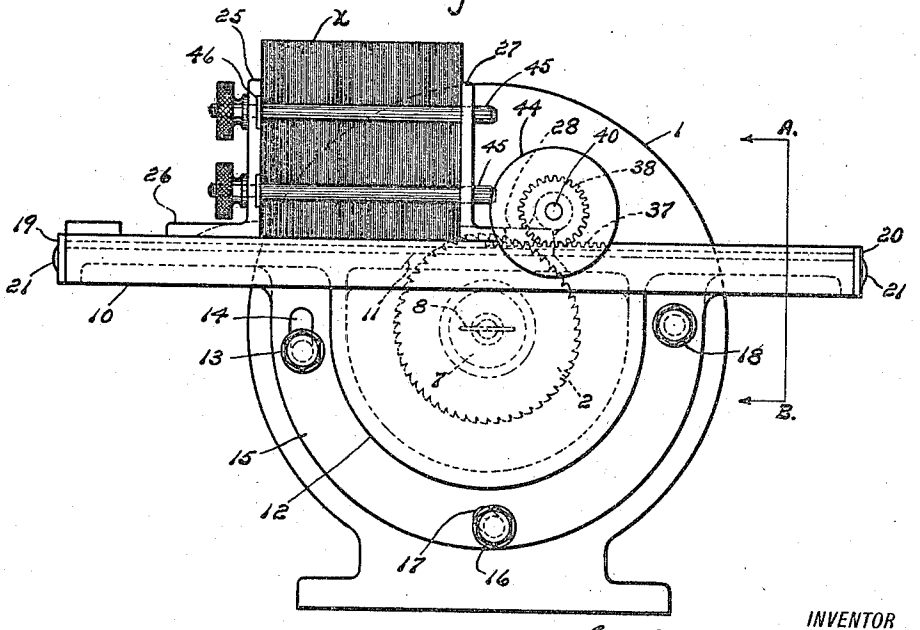


Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 4.

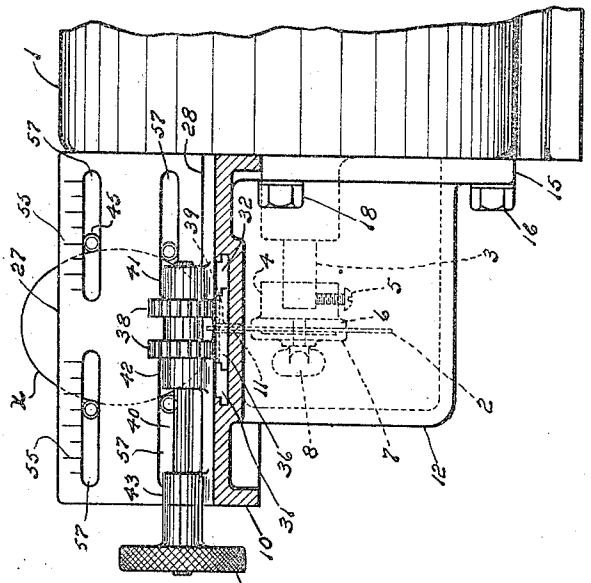
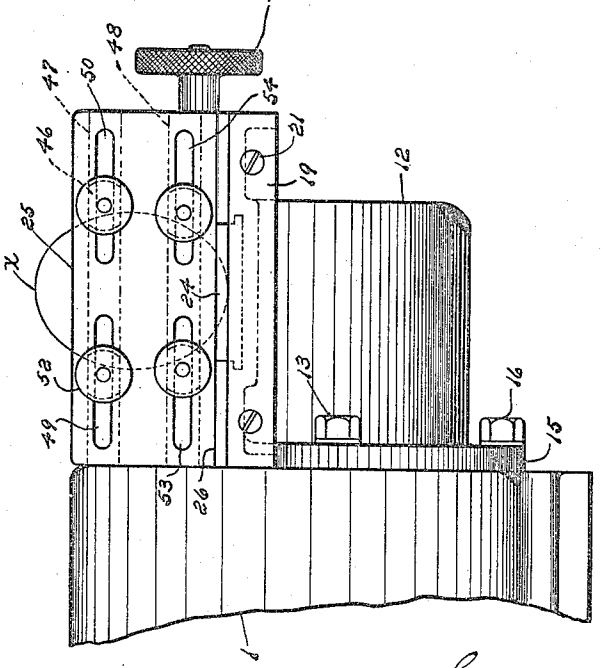


Fig. 3.



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LOUIS A. HAWTHORNE, OF ESSEX COUNTY, NEW JERSEY, ASSIGNOR TO STEEL UTILITIES, INCORPORATED, A CORPORATION OF NEW YORK.

LABEL-DATING MACHINE.

1,280,218. Specification of Letters Patent. Patented Oct. 1, 1918.

Application filed August 31, 1917. Serial No. 189,064.

To all whom it may concern:

Be it known that I, LOUIS A. HAWTHORNE, a citizen of the United States, and a resident of Essex county, in the State of New Jersey, have invented new and useful Improvements in Label-Dating Machines, of which the following is a specification.

The invention relates to a label dating machine, and in certain aspects thereof more especially to a machine for dating labels by notching or otherwise marking the edges of the labels at desired or predetermined points.

Objects and advantages of the invention will be set forth in part hereinafter, and in part will be obvious herefrom, or may be learned through practice with the invention; the same being realized and attained through the instrumentalities and combinations pointed out in the appended claims.

The invention consists in the novel parts, constructions, arrangements, combinations and improvements herein shown and described.

The accompanying drawings, referred to herein and constituting a part hereof, illustrate one embodiment of the invention, and together with the description, serve to explain the principles thereof.

Of the drawings:

Figure 1 is a front elevation of a machine constructed in accordance with the principles of the invention;

Fig. 2 is a top plan corresponding to Fig. 1 with a part of the motor and casing broken away;

Fig. 3 is an end elevation looking at Fig. 1 from the left; and

Fig. 4 is an end elevation looking at Fig. 1 from the right, but with the table shown in section on the line A—B.

In packaging many edible and potable commodities, it is essential or desirable that the packages bear the date of packaging. It is also desirable in many cases that this dating be in such form as to be undecipherable by the user, as otherwise the dating indications of the label might arouse prejudice in the mind of the user, irrespective of the condition of the contents of the package.

The machine of the present invention is adapted to make cuts or notches in the edge or edges of the labels for the commodity packages, the location of the cuts or notches indicating the year, the month, and the week of packaging, substantially as explained in application, Serial Number 125,120 of G. G. Frelinghuysen filed October 11, 1916.

In the embodied form of the invention, it is adapted for mounting upon the casing of the motor which rotates the saw or other marking device. In such embodied form, the motor casing is indicated by reference numeral 1. A saw 2 is fastened to the shaft 3 of the motor in suitable manner. As shown, the hub or mandrel 4 is centrally apertured to receive the end of the shaft 3, a clamping screw 5 passing through the mandrel 4 and engaging the shaft 3 to hold the mandrel in position thereon. The saw 2 rests against the flat outer side face 6 of the hub or mandrel 4, and a flat circular disk 7 is located on the outer face of the saw. A clamping wing bolt 8 passes centrally through the plate 7 and saw 2, and is screw threaded into the flat face 6 of the hub 4, to hold the saw in position to rotate with the hub.

In the present embodied form, the labels are fed to the saw from above, or across the top of the saw. In such embodied form, a supporting and guiding table for the label container is provided, and combined or cooperating therewith a saw guard and container for the saw dust. The table 10 is located against the end face of the motor 1, and about the upper edge of the saw 2, the saw operating in a slot 11 in the table. Connected to, and preferably integral with, the table 10 is a hollow, semi-cylindrical closure or housing 12, which is removably bolted against the flat end of the motor casing 1 and inclosing the saw 2. The housing 12, as stated, serves as a saw guard and sawdust receptacle as well as a support for the label supporting and guiding table 10. It will be understood that the "saw" as referred to may in the description and claims vary in form and will include a milling cutter, or other suitable notch maker or marker.

To provide a depth adjustment for the saw cut, there is a bolt and slot connection between the housing 12 and motor casing 1. The bolt 13 passes through an elongated slot 14 in the flange 15 of the housing 12, the bolt threading into a tapped hole in the motor casing. The bolt 16 likewise projects through an elongated slot 17 in the flange 15, the housing 12 thus pivoting about the bolt 18. That is, if the bolts be slightly loosened, by raising or lowering the left hand end of the table 10, referred to Fig. 1, and then screwing up the bolts tightly, the level of the table 10 and of the labels carried thereby will be determined or adjusted with reference to the upper edge of the saw 2. The table 10 has at either end thereof limit or tie plates 19 and 20, fastened in suitable manner as by screws 21.

Means are provided for firmly clamping together the gang of labels x and coöperating therewith means for feeding the labels past the saw, to be notched thereby. As embodied, said means comprise a carriage supported and guided along the table 10 past the saw 2. The carriage includes a clamping head in the form of a plate 25 at one end of the gang of labels, plate 25 having a base 26 resting upon the surface of the table 10. At the other end of the gang of labels is a coöperating clamping head in the form of a plate 27, having a base 28 likewise resting upon the surface of the table 10, the clamping plates being relatively movable apart to receive the labels and movable together to clamp the gang of labels. Fixed to the base 28 of clamping plate 27, by screws 30, are two guide plates 31 and 32, the guide plates being connected at their other end by a cross-piece 24. The guide plates 31 and 32 lie and fit, respectively, in guideways 33 and 34, which are formed in, and extend longitudinally of, the supporting and guiding table 10 (Figs. 2 and 4). Fixed by screws 35 to the base 26 of the opposed clamping plate 25 is a guiding and clamping plate 36 which extends past plate 27. Plate 36 lies between plates 31 and 32 between and beneath under-cut grooves on the inner longitudinal edges of the plates 31 and 32.

The upper face of clamping plate 36, at the right hand in Fig. 2, is provided with straight rack teeth 37. Meshing with the rack teeth 37 are pinions 38, said pinions being located at either side of a longitudinally disposed slot 39 formed in plate 36 and through which the saw 2 projects. The pinions 38 are mounted on a shaft 40, which shaft is journaled in supporting lugs 41, 42 and 43, mounted on the base 28 of clamping plate 27. Shaft 40 is provided with a hand wheel 44. By rotating the hand wheel 44 in one direction, the vertical clamping plates 25 and 27 are moved away from each other to admit a gang of labels, and the hand wheel 44 is then turned in the opposite direction to move the plates 25 and 27 together, to firmly clamp the labels therebetween.

The embodied form of means for relatively transversely positioning the labels and the saw to bring the cut or group of cuts at the proper point or points in the labels to indicate the particular or desired date, comprises a plurality of rods 45 located at either side of the gang of labels which are clamped between the plates 25 and 27. The various rods 45 have fixed thereto collars 46, the collars having straight edges fitting into horizontally disposed grooves 47 and 48 formed in the inner face of the clamping plate 25.

Formed in the upper part of the plate 25 are two horizontally disposed slots 49 and 50, these slots being also in alinement longitudinally with the groove 47. A rod 45 at one side of the gang of labels x projects through the slot 50, with its collar 46 fitting into the slot 47. On the opposite or outer face of the plate 25 the rod 45 is screw-threaded into a clamping nut 52. By screwing tight the nut 52, the rod 45 is clamped firmly in position in the slot 50, and likewise is squared thereby exactly at right angles to the plate 25. The other rods 45 are similarly mounted in their corresponding slots 49, 53 and 54, and these rods 45 likewise are firmly held in position and project squarely out from the plate 25, and furnish alining guides at each side of the gang of labels. By moving the rods 45 in the respective slots 49, 50, 53 and 54, the labels may be accurately positioned relatively to the saw 2, to bring the cuts or notches at the exact desired point or points in the peripheries of the labels. The plate 27 is correspondingly slotted as shown at 57 to receive the ends of the rods 45 and to permit their transverse movement and positioning as just described. The plate 25 or the plate 27, or both, may be provided with indicating scales or marks, as shown at 55 in Figs. 3 and 4 of the drawing.

After the gang of labels is laterally positioned to properly indicate the date by the adjustment or positioning of rods 45, and has been clamped between plates 25 and 27, it is pushed by hand, or otherwise, along the guideway in table 10 past the saw 2, and the notch made at the proper point in every label of the gang. The clamping plates are then opened, the labels removed, the label carrier moved back in front of the saw, a new gang of labels is inserted and the operation repeated.

By marking the labels in the manner described and by the machine of my invention, not only is the date undecipherable by

the commodity user, but large gangs of labels, comprising hundreds and even thousands, may be marked at one time and with the greatest rapidity, ease and accuracy. The objections to and disadvantages of perforating the date numbers in the labels are obviated or avoided by my invention, as with the ordinary perforating machine only a few labels can be perforated at a time, necessitating handling of the labels in small groups, usually of about ten, by a person feeding the labels thus slowly, piecemeal to the perforating machine. In this ordinary method of perforating, the labels stick together and thus interfere with the operation of the label affixing machine. With my machine there is no tendency whatsoever to cause the labels to stick and consequently to feed two or more at the time in the label affixing machine. It will be understood that changes may be made from the exact constructions shown and described, within the scope of the accompanying claims, without departing from the principles of the invention and without sacrificing its chief advantages.

What I claim as my invention is:—

1. A label dating machine including in combination a motor having a casing, a saw operated thereby, and means supporting and guiding a gang of labels past the saw, said means being mounted on the motor casing and devices for positioning said supporting means relatively to the saw to regulate the depth of cut in the labels.

2. A label dating machine including in combination a motor with a casing, a saw on the motor shaft, and a label supporting and guiding table above the saw and a housing surrounding the saw, the housing supporting the table and being adjustably attached to the motor casing to regulate the depth of the saw cut in the labels.

3. A label dating machine including in combination a saw, a carriage comprising clamping heads and side members transversely positionable relatively to the clamping heads for positioning the labels relatively to the saw, and means for guiding the carriage past the saw.

4. A label dating machine including in combination a saw, a carriage comprising clamping heads and transversely positionable side members for positioning the labels relatively to the saw, date indications upon the clamping heads and coöperating with the side members, and means for guiding the carriage past the saw.

5. A label dating machine including in combination a saw, a carriage comprising clamping heads and a plurality of independently transversely positionable side members for positioning the labels relatively to the saw, date indicating means on a clamping head coöperating with said side members, and means for guiding the carriage past the saw.

6. A label dating machine including in combination label notching means, a label carriage comprising clamping heads, and a plurality of independently positionable side members supported by one of said heads and positionable transversely thereof.

7. A label dating machine including in combination label notching means, a label carriage comprising clamping heads, one of said heads being provided with transverse slots, rods mounted in said slots and extending along the sides of the labels, and means for fastening said rods in position in their slots.

8. A label dating machine including in combination label notching means, a label carriage comprising clamping heads, both of said heads being transversely slotted, rods at either side of the labels and extending through the slots in the two heads, and means for fixing the rods to one of said heads.

9. A label dating machine including in combination label notching means, a table having a guideway therein, a clamping head having guiding means in said guideway, a coöperating clamping head having guiding means located in said guideway, and devices acting on both said guiding means to move the clamping heads toward or from each other.

10. A label dating machine including in combination label notching means, a table having a guideway therein, two coöperating clamping heads, means for moving them together and apart and side gages for the labels comprising a plurality of separated rods independently adjustable to fit labels of various and irregular shapes.

11. A label dating machine including in combination label notching means, a table having a guideway therein, two coöperating clamping heads, means for moving them together and apart and side gages for the labels comprising a plurality of separated rods independently adjustable to fit labels of various and irregular shapes, the rods being so mounted on one of the clamping heads.

12. A label dating machine including in combination a base, a motor, a saw on the motor shaft, and means for clamping a pack of labels supported on said base, means for transversely positioning the pack of labels relatively to the base to be notched by the saw at an arbitrary predetermined point in the labels to indicate a date, and means for moving the pack of labels past the saw.

13. A label dating machine including in combination a motor and its casing, a saw on the motor shaft, a carriage guiding table supported on the motor casing, and a car-

riage traveling along the table and means for clamping a pack of labels on the carriage and for positioning the pack relatively to the saw to notch the labels at a predetermined point to indicate a date.

14. A label dating machine including in combination a motor and its casing, a saw on the motor shaft, a carriage guiding table supported on the motor casing, and a carriage traveling along the table and means for clamping a pack of labels on the carriage and for positioning the pack transversely on the carriage relatively to the saw to notch the labels at a predetermined point to indicate a date.

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

LOUIS A. HAWTHORNE.

Witnesses:

EDW. V. WENTS,

WILLARD L. HOAGLAND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."