H. R. BEVIER.

WRAPPING MACHINE.

APPLICATION FILED JULY 27, 1918.

1,329,069.

Patented Jan. 27, 1920.

2 SHEETS—SHEET 1.

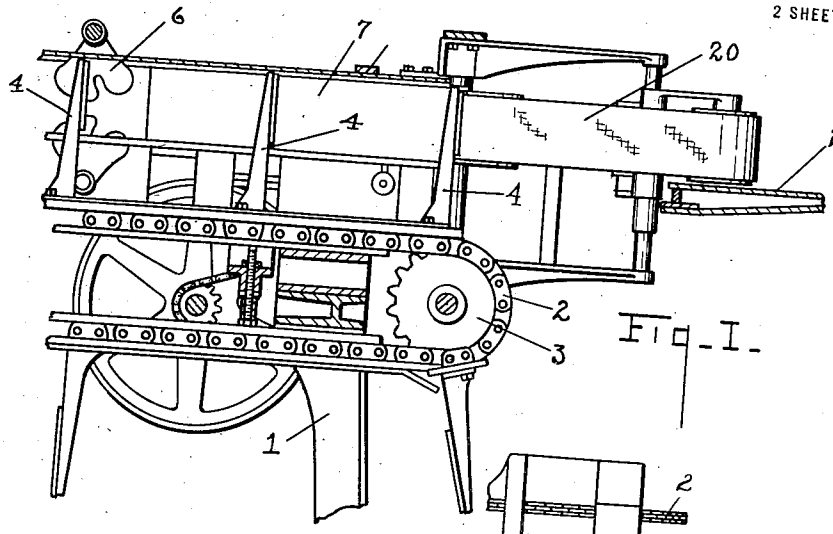


Fig. I.

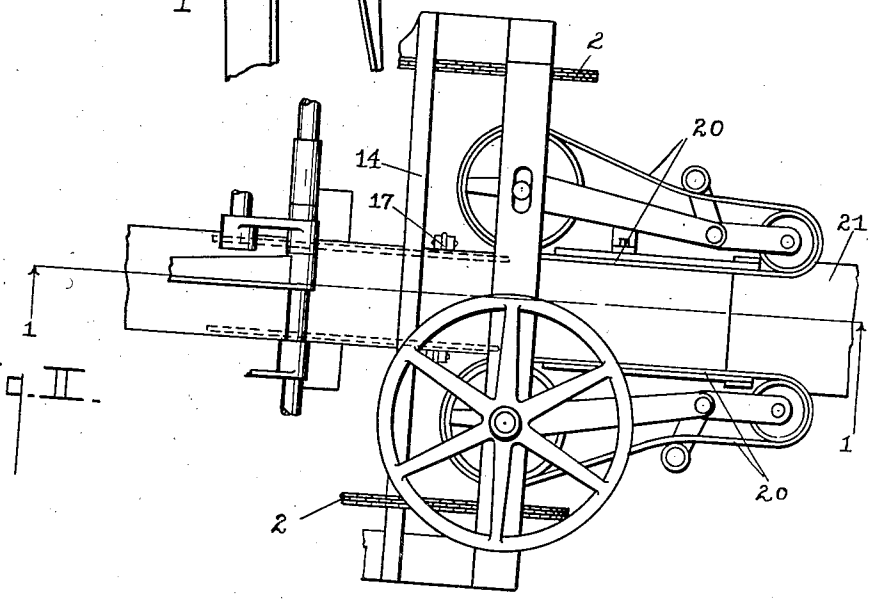


Fig. II.

Witnesses

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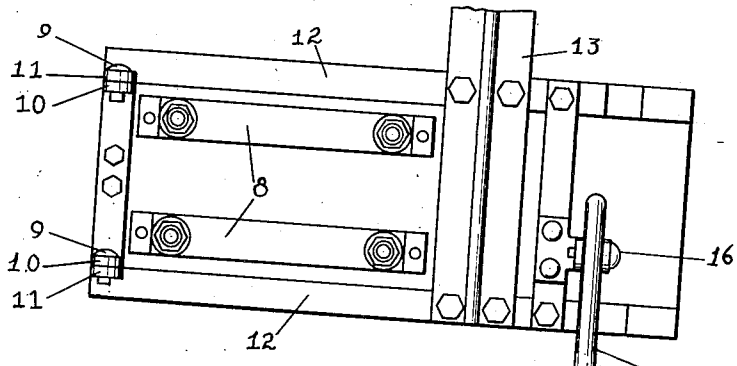


FIG. III.

FIG. IV.

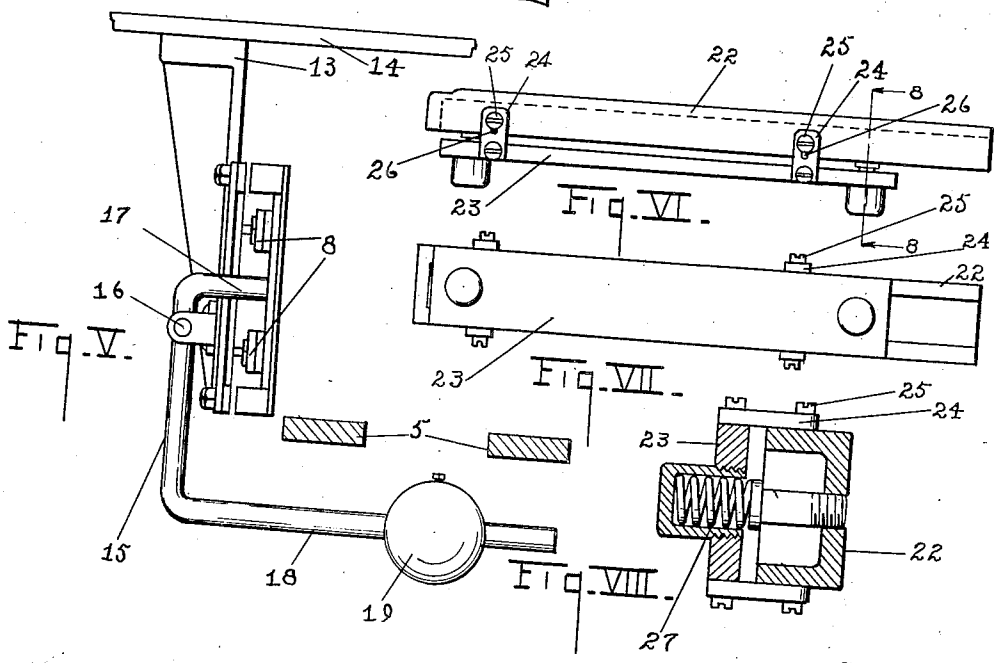


FIG. V.

FIG. VI.

FIG. VII.

FIG. VIII.

Witnesses

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UNITED STATES PATENT OFFICE.

HENRY R. BEVIER, OF BATTLE CREEK, MICHIGAN, ASSIGNOR TO JOHNSON AUTOMATIC SEALER CO., LTD., OF BATTLE CREEK, MICHIGAN.

WRAPPING-MACHINE.

1,329,069. Specification of Letters Patent. Patented Jan. 27, 1920.

Application filed July 27, 1918. Serial No. 246,993.

To all whom it may concern:

Be it known that I, HENRY R. BEVIER, a citizen of the United States, residing at Battle Creek, county of Calhoun, State of Michigan, have invented certain new and useful Improvements in Wrapping-Machines, of which the following is a specification.

This invention relates to improvements in wrapping machines.

My improvements are particularly designed by me for use on wrapping machines of the type illustrated in the application of Harry L. Johnson, Ser. No. 5257, filed Jan. 30, 1915, and I have illustrated the same as I have embodied it in such a machine. My improvements are, however, readily adapted and desirable for use in other relations.

The main objects of this invention are:

First, to provide an improved sealing means for wrapping machines which is very effective in sealing waxed wrappers.

Second, to provide an improved sealing means for wrapping machines which is adapted for use in sealing packages of considerable variation in size without special adjustment.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a detail longitudinal section of a structure embodying the features of my invention taken on a line corresponding to line 1—1 of Fig. II.

Fig. II is a detail plan view.

Fig. III is an enlarged detail side elevation of one of my improved heating plates.

Fig. IV is a detail top view thereof.

Fig. V is a rear end elevation of one of my improved heating plates.

Fig. VI is a top view of a modified form of my improved heating plate.

Fig. VII is a side elevation thereof.

Fig. VIII is an enlarged detail view on a line corresponding to line 8—8 of Fig. VI.

In the drawing I have illustrated only such parts of a wrapping machine as seem to me desirable to illustrate an adaptation of my improvements.

In the drawing similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, 1 represents the main frame of the machine, which is provided with a conveyer comprising a conveyer chain 2 supported at its rear end by the sprocket 3 and provided with flights 4. The articles advanced by the conveyer are carried along on the conveyer ways 5 by the flights which project upwardly between the ways on the upper reach of the conveyer chain. Details of the wrapping means are shown at 6. The wrapping means are not fully shown and described as they form no part of my present invention. A satisfactory wrapping means is shown in the application for patent hereinbefore referred to.

As the packages are carried along by the conveyer they are carried between the sealing plates 7, shown by dotted lines in Fig. II supported in an opposed relation.

The sealing plates carry heating means, shown conventionally at 8, the plates illustrated being provided with electrical heating units.

The electrical connections are not illustrated as they will be readily understood by those skilled in the art to which this invention relates.

Each plate is supported at its front end by pivots 9 disposed through ears 10 on the plate and coacting ears 11 on the forward end of the supporting frame 12. This supporting frame is mounted on the hanger 13 carried by the cross bar 14. The rear end of the sealing plate is held yieldingly inward by means of the lever 15 which is pivoted on the supporting frame at 16 and provided with an inturned arm 17 engaging the plate and with an inwardly projecting arm 18 having weights 19 adjustable thereon for regulating the pressure with which the plates are urged inwardly.

As the packages are carried along between the plates by the flights the plates yieldingly engage the packages so as to effectively seal

the wrappers, the sealing being effected by fusing the paraffin of the wrapper, as is well understood in the art.

A further advantage is secured by yieldingly supporting the plates, namely, that of their adjusting themselves automatically to packages of varying size. It is found in practice that this is a very material advantage as packages vary in size or on account of distortion or variations in dimensions. By my improvements such variations are effectively accommodated and at the same time effective sealing had.

The packages are passed by the conveyer to the delivery belts 20 and by them to the delivery table 21. These parts are shown in the application referred to and therefore are not further described herein.

The driving means for the conveyer are not described as such driving means form no part of this invention.

In the modification shown in Figs. VI, VII and VIII the heating plate 22 is supported by the bar 23 mounted on the hanger 13 and provided with inwardly projecting arms 24 between which the heating member is supported by the screws 25 engaging the slots 26 permitting limited movement.

Springs 27 carried by the bar 23 urge the heating members yieldingly inward.

I have not attempted to illustrate other adaptations of my improved sealing means which I contemplate as I believe the disclosure made will enable those skilled in the art to embody or adapt the same as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a wrapping machine, the combination of a conveyer, sealing plates disposed in an opposed relation at the sides of the conveyer to act on the packages carried between them by the conveyer, hangers, sealing plate supporting frames on said hangers, the front ends of said plates being pivoted on said frames, levers for urging the rear ends of said plates yieldingly inward pivoted on said frames and having arms extending under the conveyer, weights adjustable on said arms, and heating means for said plates carried thereby.

2. In a wrapping machine, the combination of a conveyer, a sealing plate disposed to act on the packages carried along thereby, a hanger, a sealing plate supporting frame carried thereby, the front end of said heating plate being pivotally mounted on said frame, a lever pivotally mounted on said frame to act on the rear end of said plate, and a weight adjustable on said lever, all coacting for the purpose specified.

3. In a wrapping machine, the combination of a conveyer, sealing plates disposed in an opposed relation to act on the packages carried between them by the conveyer, said plates being pivotally mounted at their front ends, pivoted levers for urging the rear ends of said plates yieldingly inward, actuating weights adjustable on said levers, and heating means for said plates carried thereby.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

HENRY R. BEVIER. [L. S.]

Witnesses:
BERNARD J. OWEN,
PEARL KNAPP.