

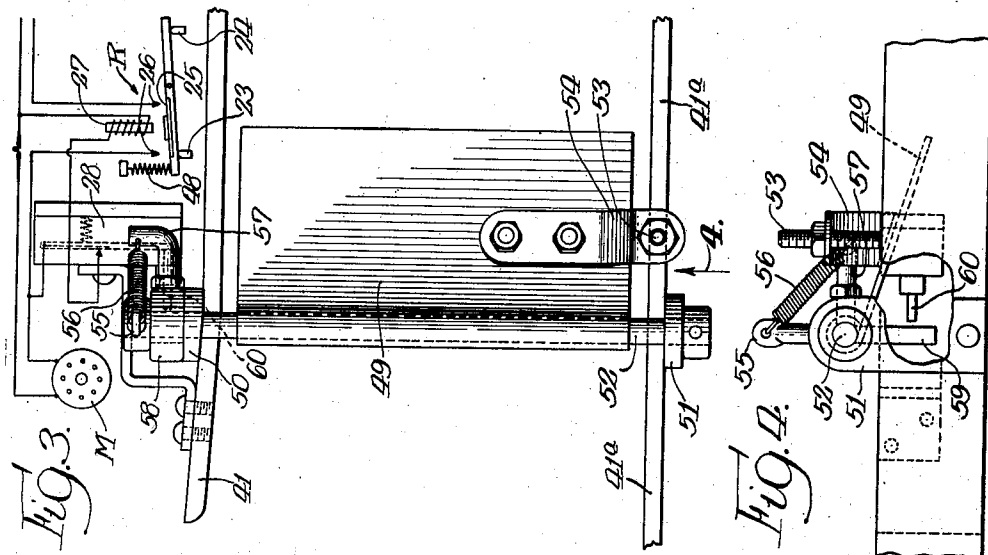
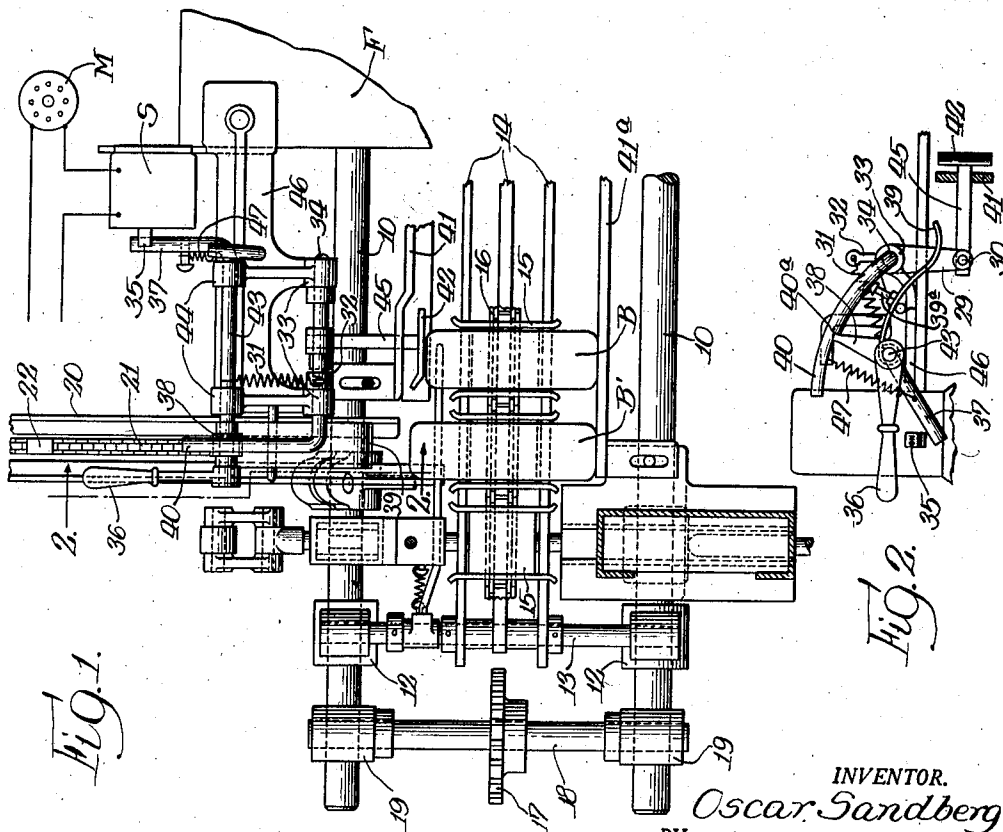
July 25, 1944.

O. SANDBERG

2,354,482

ARTICLE FEEDING MECHANISM

Filed March 23, 1942



INVENTOR.
Oscar Sandberg
BY
Bair & Dreeman
Attys

UNITED STATES PATENT OFFICE

2,354,482

ARTICLE FEEDING MECHANISM

Oscar Sandberg, Defiance, Ohio, assignor to
Lynch Manufacturing Corporation, Defiance,
Ohio, a corporation of Ohio

Application March 23, 1942, Serial No. 435,781

7 Claims. (Cl. 198—232)

My present invention has to do with an article feeding mechanism for a wrapping machine, such as the types shown in my Patent No. 2,208,776, issued July 23, 1940, and my copending application Serial No. 317,370, filed February 5, 1940, of which application the present one is a continuation-in-part.

One object of the invention is to provide a wrapping machine in which a candy bar conveyor conveys the bars from a bar feeding conveyor to a position in registration with a wrapper, mechanism being associated with the bar conveyor to stop the machine if an exceptionally long or thick bar, unsuitable for wrapping, is discharged from the bar feed conveyor onto the bar conveyor.

A further object of the invention is to provide means to stop the operation of the wrapping machine in response to a bar that is too long or too thick, by breaking a control circuit for the motor that normally operates the machine.

Still another object is to provide a modification wherein the motor is under the control of a starting relay and the circuit of the starting relay is broken by the mechanism which I provide for gauging a candy bar, and if it is too large, breaking the relay circuit.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawing, wherein:

Figure 1 is a plan view of the bar feeding end of a wrapping machine such as shown in my parent application, the automatic stop devices being shown in connection therewith;

Figure 2 is a detail view of one of the stop devices as on the line 2—2 of Figure 1;

Figure 3 is a plan view on an enlarged scale showing a modification of my mechanism; and

Figure 4 is an end view of Figure 3 looking in the direction of the arrow 4 at the bottom of Figure 3.

The wrapping machine of my parent application has to do with the wrapping of articles, for instance, candy bars of the type commonly sold in drug and grocery stores. Only the parts of the machine essential to the operation of the automatic stop devices of my present invention are illustrated on the drawing and will be described.

The wrapping machine has a frame, one corner

of which is indicated at F, and extending from the frame F is a pair of supporting rods 10. The rods 10 adjacent their outer ends have brackets 12 thereon, supporting a cross-rod 13 which, in turn, supports one end of a bar conveyor including stationary guide bars 14 and pockets 15. The pockets 15 are channel-shaped to laterally receive articles such as candy bars B. The pockets 15 are mounted on a conveyor chain 16 that passes around a sprocket 17. The sprocket 17 is mounted on a shaft 18 journaled in bearings 19 mounted on the supporting rods 10.

There is also a feeding conveyor 20 having therein a feed chain 21, with projections 22 thereon to engage the bars B and propel them into the pockets 15. The conveyor chains 16 and 21 are driven intermittently in timed relation from a motor M, the driving mechanism forming no part of the present invention, and, accordingly, not being shown. It is fully shown, however, in my parent application.

The motor M is energized by a toggle switch S. A manual lever 36 is provided for latching the toggle switch S in "on" position. When the lever 36 is lowered against the bias of a spring 47 (see Figure 2) a dog 38 thereof engages a latch 40. The latch 40 is adapted to be released by either a stop plate 42 or a stop plate 39, when the plate 42 is engaged by the end of a candy bar, or when the plate 39 is engaged by the top of one, as will hereinafter be described. The plate 42 is carried by a rod 45 slidable through a conveyor side member 41, the opposite side member being shown at 41^a.

The lever 36 is mounted on a rock shaft 43, suitably supported in bearings 44 of a bracket 46 extending from the frame F. The rock shaft 43 is bent, as at 37, to a position under the manual toggle handle 35 of the switch S.

The latch 40 is formed on a rock shaft 34 oscillatably mounted in bearings 33, also on the bracket 46, and is constrained to downward movement by an arm 32 thereon and a spring 31 having one end attached thereto and the other end anchored on the rock shaft 43. The sliding rod 45 is pivoted at 30 to a lever 29 extending downwardly from the rock shaft 34.

In Figures 3 and 4, I show a modified construction wherein the motor M is controlled by a motor starting relay R. The relay R is shown diagrammatically and is of the usual construction, having a start button 23 and a stop button 24. The start button 23, when depressed, closes the circuit of the motor by a contact 25 bridging the contacts 26. The contacts 25—26 are re-

4. In a device of the character disclosed, means
70 to feed articles to be wrapped to a wrapping
position comprising a conveyor having spaced
article receiving pockets, means for depositing an
article in each of said pockets, an electric motor
for propelling said conveyor, a manually closable
75 switch, means to bias said switch toward open

position, a latch for retaining said last means in the inoperative position thereof, and a stop plate engaged by the top of any article which is too thick to be wrapped properly, said stop plate being operable when so engaged to release said latch and thereby permit said means which biases said switch toward open position to become operative to open the switch to stop said electric motor and conveyor.

5. In a device of the class described, means to feed articles to be wrapped to a wrapping position comprising a conveyor having spaced article receiving pockets, means for placing an article in each of said pockets, an electric motor for propelling said conveyor, a manually closable switch, means to bias said switch toward open position, a latch for retaining said last means in the inoperative position thereof, a stop plate engaged by the end of an article in any of said pockets which is too long to be wrapped properly, and a stop plate engaged by the top of any article which is too thick to be wrapped properly, either of said stop plates being operable when so engaged to release said latch and permit said means which biases said switch toward open position to become operative and thereby open the switch to stop said electric motor and conveyor.

6. In means for supplying articles to a wrap-

ping machine, means to feed articles to be wrapped to a wrapping position comprising a conveyor having spaced article receiving pockets therein, means for depositing an article in each of said pockets, a motor for propelling said conveyor, a push button operated starting relay for said motor having a holding circuit, and means engaged by the top of an article in any of said pockets which is larger than a predetermined size, said last means being operable when so engaged to open said holding circuit to thereby permit return of said push button operated starting relay to its initial position to effect stopping of said motor and thereby said conveyor.

7. In a device for feeding articles to a wrapping machine, means to feed articles to be wrapped to a wrapping position, means for placing articles on said feeding means, electrically energized means for propelling said feeding means, a push button for energizing said last means, a holding circuit for said push button, and means engaged by an article which is too large to be properly wrapped in the machine, said last means being operable when so engaged to open said holding circuit, thereby permitting said push button to return to open circuit position and stop said electrically energized means for propelling said feeding means.

OSCAR SANDBERG.