Feb. 10, 1925. 1,525,812

M. P. KENNA

STICK CANDY WRAPPING MACHINE

Filed June 20, 1922 5 Sheets-Sheet 1

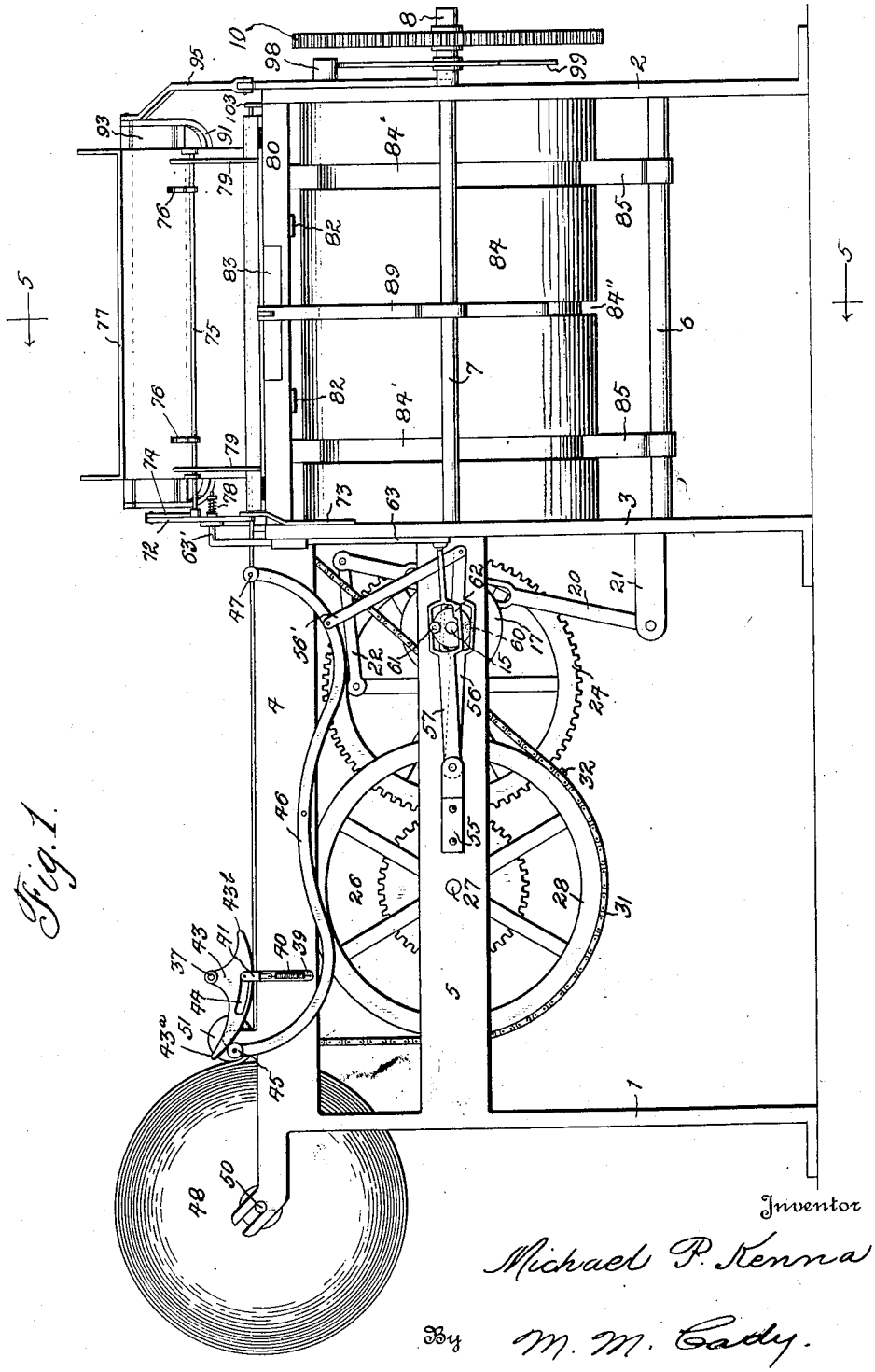

Fig. 1.

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STICK CANDY WRAPPING MACHINE

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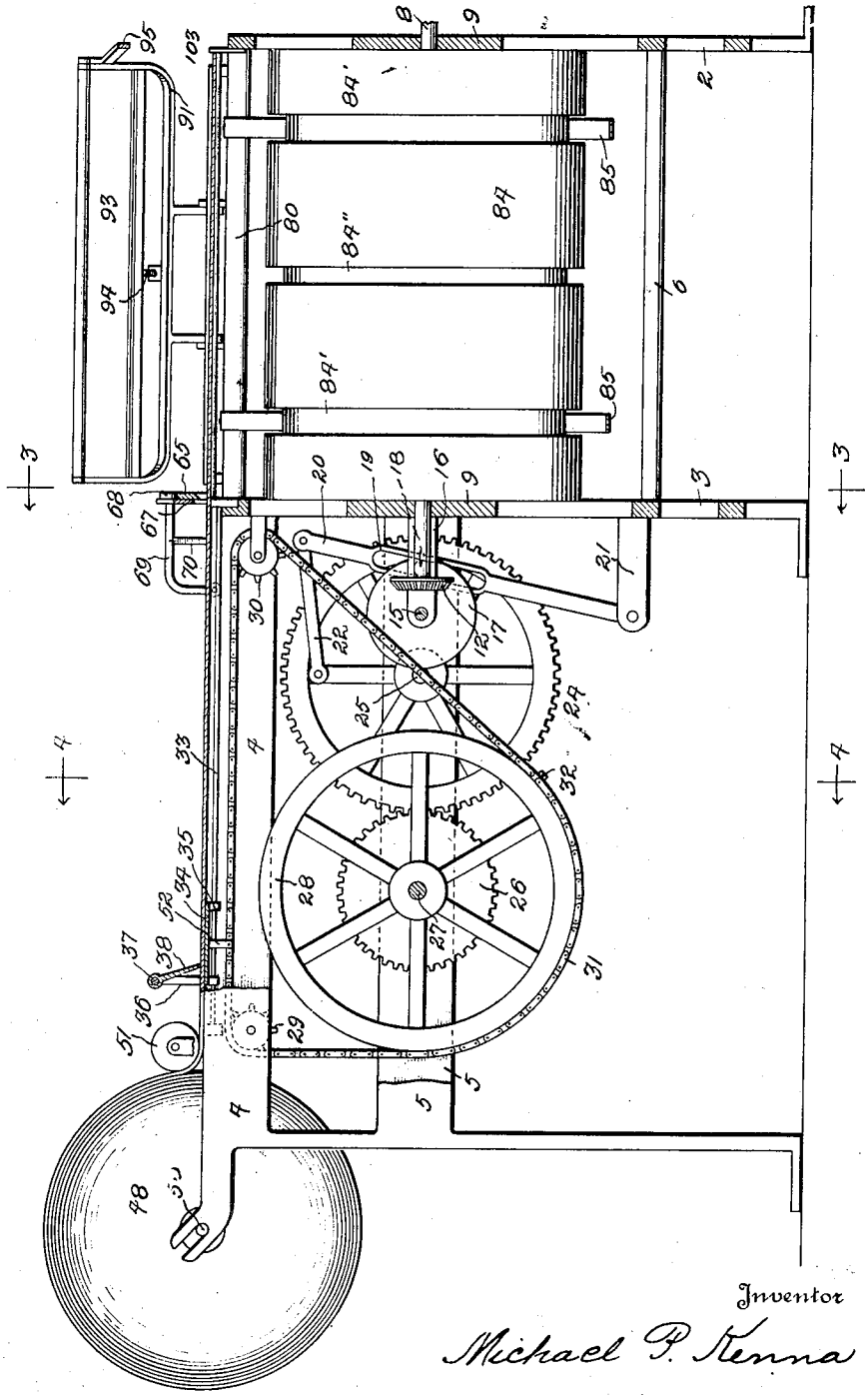

Fig. 2.

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STICK CANDY WRAPPING MACHINE

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Fig. 4.

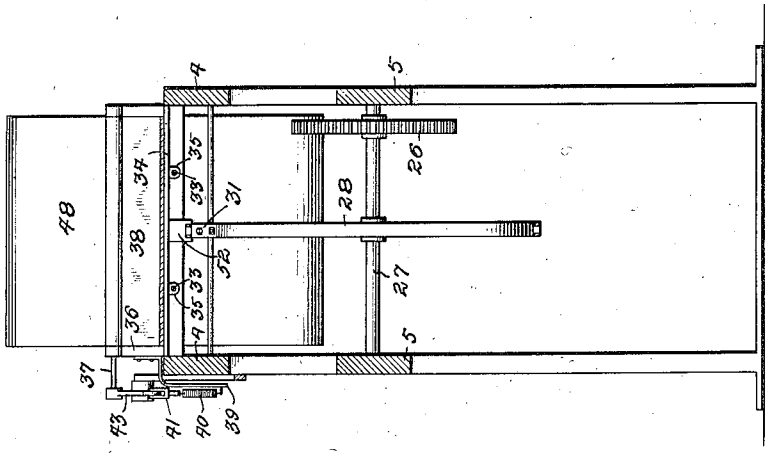
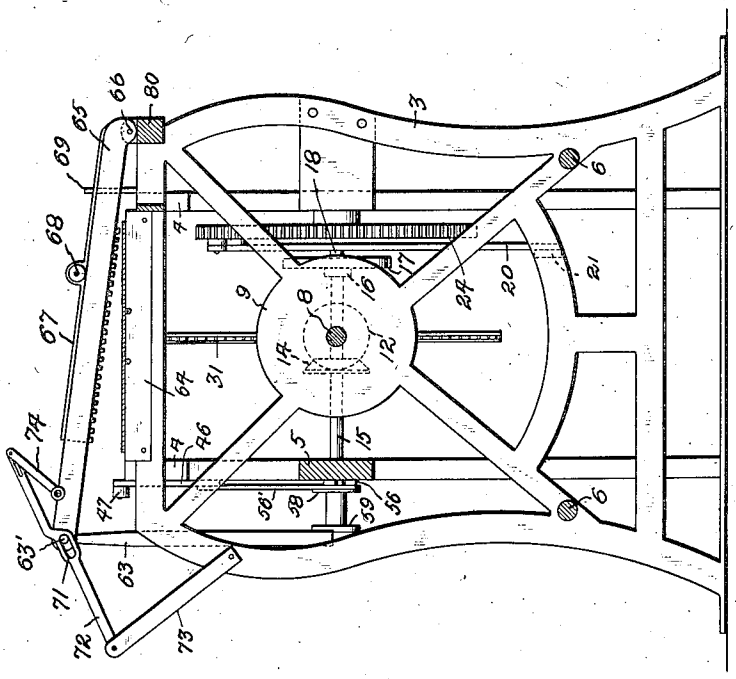


Fig. 3.



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STICK CANDY WRAPPING MACHINE

Filed June 20, 1922 5 Sheets-Sheet 4

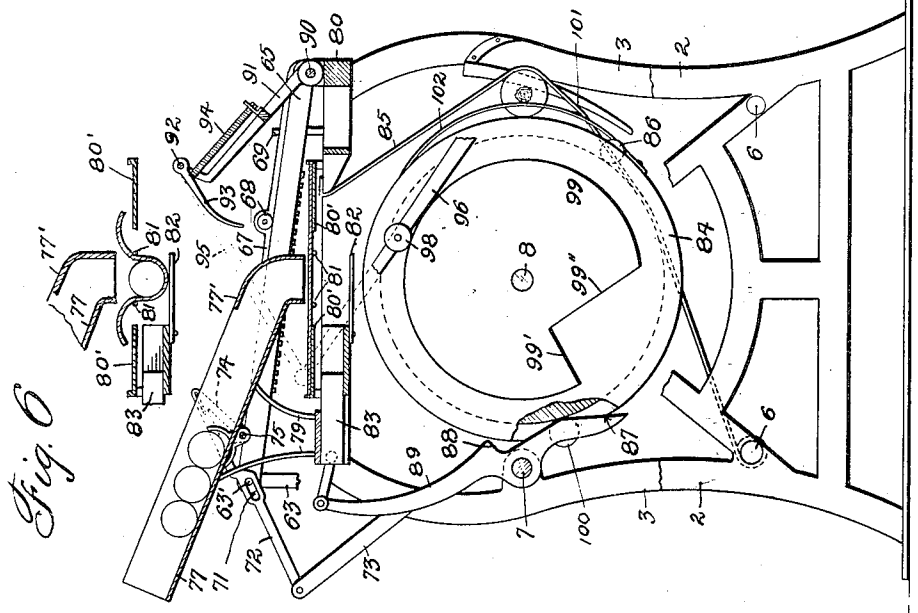

Fig. 6

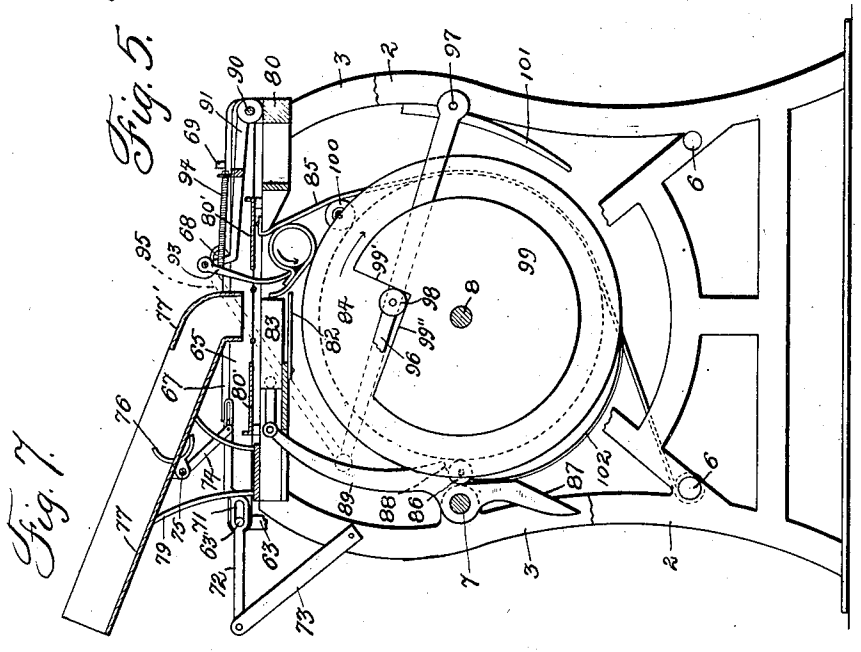

Fig. 5.

Fig. 7.

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Feb. 10, 1925. 1,525,812

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STICK CANDY WRAPPING MACHINE

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Fig. 8.

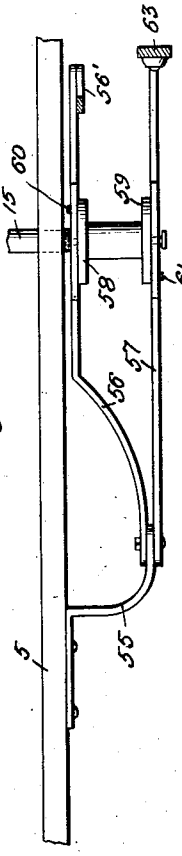


Fig. 11.

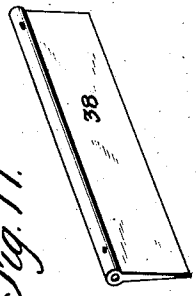


Fig. 10.

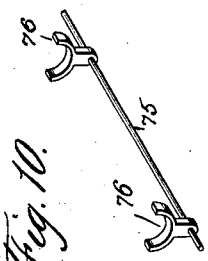


Fig. 12.

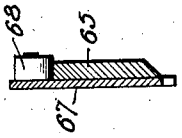
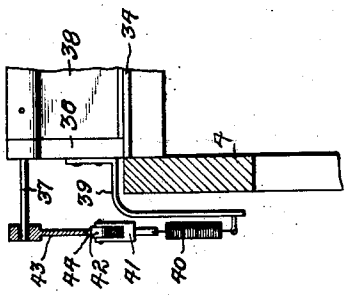


Fig. 9.



Inventor

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Patented Feb. 10, 1925. 1,525,812

UNITED STATES PATENT OFFICE.

MICHAEL P. KENNA, DECEASED; BY MARY E. KENNA, EXECUTRIX, OF DUBUQUE, IOWA.

STICK-CANDY-WRAPPING MACHINE.

Application filed June 20, 1922. Serial No. 569,607.

To all whom it may concern:

Be it known that MARY E. KENNA, a citizen of the United States, resident of the city and county of Dubuque, and State of Iowa, executrix under the will of the estate of the late MICHAEL P. KENNA, now deceased, a citizen of the United States, has invented certain new and useful Improvements in Stick-Candy-Wrapping Machines, of which the following is a specification.

This invention relates to certain new and useful improvements in candy wrapping machines and has particular reference to a machine of the type particularly designed for wrapping stick candy.

One of the objects of the invention embodies in a machine for wrapping stick candy, the provision of means for rotatably supporting a roll of wrapping paper to be fed in a step by step movement and thereafter cut into predetermined lengths.

Another object of the invention has reference to a machine for wrapping candy wherein a power shaft designed for continuously rotating a disc supported upon a cross shaft that imparts oscillatory movement to a feeding device for a strip of paper delivered from a roll.

A further object of the invention includes in a machine for wrapping stick candy, means associated with a feed hopper for feeding a single stick of candy to the wrapping mechanism and also operating to retard the discharge of other sticks in the hopper to the wrapping mechanism.

A still further object of the invention embodies in connection with a candy wrapping machine of the type above set forth, the provision of a pair of spaced rods with a cut strip of paper disposed above the same with a stick of candy delivered from the feed hopper received upon the strip of paper to depress the paper by gravity between the spaced rods for partially enclosing the candy stick.

Another object of the invention embodies in a candy wrapping machine of the above type, a rotatable drum having flexible bands engaging a portion of the periphery of said drum with the stick of candy partially enclosed by the strip of paper disposed between the drum and bands, the bands being retained against circular movement relative to said drum with the drum rotating the partially wrapped sticks of candy to complete the wrapping operation thereof, cooperating devices carried by the drum and machine frame engaging the projecting ends of the paper strips for twisting the same and effecting the complete wrapping of the stick of candy.

With the above general objects in view and others that will appear as the nature of the invention is better understood from the following description, the same consists in the novel construction, combination of parts to be hereinafter more fully described, and then claimed.

In the accompanying drawings, forming a part of this application, and to which reference is had by like characters designating corresponding parts throughout the several views;

Fig. 1 is a side elevational view of a candy wrapping machine constructed in accordance with the present invention showing the operating lever for shifting the cam member that controls the presser-foot for feeding the wrapping paper in a step by step movement,

Fig. 2 is a side elevational view of the machine, partially in section showing the drive shaft and the system of levers for effecting oscillatory movements of the operating wheels for reciprocating the paper feeding mechanism,

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 2, showing the cutting knives for the paper strip, the presser-foot associated with the upper knife and the operating mechanism therefor,

Fig. 4 is a cross sectional view taken on line 4—4 of Fig. 2, showing the tensioned cam control device for the presser-foot,

Fig. 5 is a cross sectional view taken on line 5—5 of Fig. 1, showing the feed trough for the stick candy, a strip of paper supported on the platform trays and spaced rods, the spring arm for receiving the candy stick and paper, the lever operated plunger rod for delivering the candy stick and paper from the spring arm to the winding drum, the fabric band associated with the drum and the devices for twisting the projecting ends of the paper strips,

Fig. 6 is a detailed sectional view showing

the position assumed by the paper strip and candy stick when received on the spring arm,

Fig. 7 is a cross sectional view, similar to Fig. 6, showing the plunger rod extended and the tensioned blade in engagement with the paper for the initial wrapping thereof.

Fig. 8 is a fragmentary detailed view partially in section showing the double disc device for operating the levers that shift the cam control for the presser foot and the upper movable cutting blade,

Fig. 9 is a fragmentary detailed view, partially in section, showing the spring device for holding the cam in its shifted position,

Fig. 10 is a perspective view of the device for controlling the delivery of candy sticks from the feed hopper,

Fig. 11 is a perspective view of the presser-foot detached from the paper feeding mechanism, and

Fig. 12 is a detail sectional view, showing the upper cutting blade and the paper gripping device associated therewith.

Briefly described, the present invention relating to machines for wrapping stick candy embodies a frame structure supporting a single power shaft that is suitably driven for operating the entire mechanism of the device. The machine frame embodies an upper platform with a paper roll rotatably supported adjacent one end thereof with a strip of paper delivered from the roll fed over said platform, a reciprocating carriage positioned above the platform carrying a presser-foot that is controlled in its operation by a tensioned cam in turn shifted from one position to another by a lever, the ends of which engage the cam adjacent its limits of movements in opposite directions for moving the presser-foot into engagement with the strip of paper upon the platform for feeding the same in a step by step movement to the candy wrapping mechanism. The candy wrapping mechanism of the device embodies an inclined feed hopper having means associated therewith for singly feeding a stick of candy and preventing the further delivery of candy sticks in the hopper, cutting mechanism for severing the paper in desired lengths operating in conjunction with the paper feeding mechanism for severing the paper upon backward movement of the presser-foot and carriage, the cut strip of paper being disposed beneath the hopper outlet with means for bending the paper into U-shaped formation enclosing the stick of candy to be delivered to a spring arm. A cam operated lever delivers the candy and folded paper sheet onto a rotating drum simultaneously with the lowering movement of a tensioned blade that engages one side of the paper strip for initially wrapping the candy stick, flexible drums engaging a portion of the periphery of the drum and being immovable circumferentially of the drum to effect complete wrapping of the stick of candy, while cooperating devices carried by the drum and the machine frame engage the projecting ends of the paper strip for twisting the same.

Referring more in detail to the accompanying drawings, the machine frame embodies end supporting legs 1 and 2, and intermediate supporting legs 3, the upper ends of the legs 1 and 3 being connected by side bars 4, while side bars 5 extend between said legs intermediate the upper and lower ends thereof, as clearly shown in Figs. 1, 2 and 4. The legs 2 and 3 are connected and braced by rods 6, and 7. The mechanism for delivering the paper to the wrapping portion of the machine and the operating devices associated with the feeding mechanism will first be described.

A power shaft 8 is journaled longitudinally of the machine in cross braces 9 carried by the legs 2 and 3, the outer end of said shaft having keyed thereto gear 10 to which power is applied to drive the machine. The inner end of this shaft, is provided with a bevel gear 12 with which meshes a beveled gear 14 (see Fig. 3) keyed to a transverse shaft 15 having its rear end journaled in a bracket 16 (see Figs. 2 and 3) which extends from one of the cross members 9, and having its forward end journaled in one of the side bars 5. Upon the rear end of shaft 15 is fixed a disc 17 which is provided with a crank pin 18 which works in a slot 19 of a vertical lever 20, the lower end of which is journaled in bracket 21 extending from the ledge 3. To the upper end of lever 20 is pivoted a link 22, which in turn, is pivoted to a large gear 24 carried by a shaft 25 suitably journaled in the side bars 5. This gear 24 meshes with a smaller gear 26 fixed to a shaft 27, which shaft is also suitably journaled in the side bars 5 and has fixedly attached thereto a main drive wheel 28. At each end portion of the paper feeding section of the machine and beneath the plane of the upper edge of the side bars 4, are suitably journaled small sprocket wheels 29 and 30, and over these sprocket wheels and around the main drive wheel 28 passes a sprocket chain 31, the same being endless and fixed at point 32 to the wheel 28. Extending between the legs 1 and 3, though not necessarily carried thereby, since other means of mounting may be employed, are parallel guide rods 33, on which reciprocates a paper feeding carriage comprising a plate 34 from which depends lugs 35, apertured to receive the said guide rods 33. At each end of the plate 34 is provided a standard 36, and in the upper ends of both of these standards is journaled

a cross shaft 37 to which is fixed a presser-foot 38.

Attached to the standard 36 on the forward side of the machine, as best illustrated in Figs. 1, 4 and 9, is a depending arm 39 which is bent to straddle the side bar 4, and attached to its lower end is one end of a coil spring 40, the upper end of which is attached to the stem of a U-shaped member 41, between the furcations of which is journaled a roller 42. On the extending forward end of the cross shaft 37 is fixed a crescent shaped cam 43, which is provided with a slot 44 receiving the roller 42, and the portion of said cam between said slot and the lower edge of the cam being confined within the U-shaped member 41 as illustrated in Fig. 9. This cam extends forwardly and rearwardly of the cross shaft 37 and when the paper feeding carriage is in its retracted position, as in Fig. 1, the rear end 43^a of the cam engages a roller 45 mounted on the rear end of a shipper arm 46, and the opposite end of this arm is provided with a similar roller 47 which engages with the opposite end 43^b of the cam when the paper feeding carriage is in its advanced position.

The roll of paper 48 is stored on a core journaled at 50 in one end of the machine frame and the paper is fed under a roller 51 suitably mounted in the frame and passes over the plate 34 and under the presser foot 38 of the paper feeding carriage, and when gripped between the presser-foot 38 and the plate 34 is adapted to be moved for feeding, as will be later described, due to the connection 52 between said carriage feeding plate 34 and the sprocket chain 31, at a suitable point in the length of which said connection 52 is affixed. On the forward side of the machine, to a cross bar 5, is attached a bracket 55, and to the end of which are pivoted a pair of levers 56 and 57 (see Figs. 1 and 8). On the forward end of the transverse shaft 15 is attached a double disc member comprising front and rear disc portions 58 and 59, each equipped with a crank pin 60 and 61 respectively, and in Fig. 8 particularly it will be observed that these crank pins are oppositely disposed, so that one raises its lever 56 or 57 while the other depresses its lever. Raising and lowering of these levers is caused by the rotation of the crank pins within slots provided in the levers 56 and 57, as clearly illustrated in Fig. 1. The slot in the lever 57 is shouldered slightly as at 62 in Fig. 1, so as to advance the moment of contact of the crank pin 61 therewith to cause depression of this lever 57 at the properly timed moment to cause downward reciprocation of a knife operating bar 63, to the lower end of which the lever 57 has jointed connection.

Upon the upper edge of the leg 3 (see Fig. 3), is affixed a ledger blade 64 with which cooperates a pivoted cutting blade 65, the same being pivoted at 66 to the said leg 3, and at the same point is pivoted a paper gripper 67, the same being provided with a roller 68, which is normally held in contact with the upper edge of the cutter blade 65 by means of a lever 69 which is journaled to one of the side bars 4 and under tension of a spring 70 (see Fig. 2). The upper end of the knife operating bar 63 is bent at right angles to provide an arm 63′ which passes through the forward end of the pivoted blade 65 and also through a slot 71 (see Fig. 3) in lever 72, one end of which is pivoted to a bracket 73, and the other end of which has a slotted connection with a crank arm 74 of a rock shaft 75, which mounts a pair of U-shaped single delivery stick candy feeding fingers 76. These fingers work through slots in the bottom plate 77 of an inclined magazine chute in which the sticks of candy to be wrapped are initially placed. As seen in Fig. 1, the end 63′ of the cutting operating bar is provided with a coil spring 78 which acts as a yielding end key to maintain proper operative relation of the associated parts.

The magazine chute is mounted upon standards 79 on the table 80, said table extending between the legs 2 and 3. The forward end of the chute is closed by a guard plate 77′ to properly direct the candy to the wrapping mechanism. This wrapping mechanism consists of a pair of parallel bars 81 over which the paper is fed, as illustrated in Fig. 5, and later cut. A stick of candy falling from the chute upon the paper forces the same downwardly between the bars 81 as in Fig. 6, and while in this position and resting on a pair of spring arms 82, a plunger 83 is operated to force the candy and its wrapper off the spring arm support 82 and into the position illustrated in Fig. 7. In this position, the stick of candy and its wrapper rest upon the periphery of the wrapping drum 84 to be later carried downwardly thereby, as will be later described, between said drum and a pair of belts 85. The upper ends of these belts are attached to the table 80, their intermediate portions enter grooves 84′ formed in the drum, and their lower ends are attached to one of the rods 6, and for the purpose of adjustment, such rod is preferably rotatable. The drum is also provided with a central groove 84″ (see Fig. 1) in which is suitably journaled the roller 86 which, at the proper moment engages with the toe 87 or the heel 88 of an operating lever 89 for the plunger 83, said lever being pivotally mounted on the side rod 7, of the frame.

Pivoted to the table at 90 is a U-shaped arm 91, in the upper end of which is journaled a shaft 92 upon which is fixed a crimp-

ing blade 93, the same being under tension of coil spring 94. One end of the shaft 92 is pivotally connected to a link 95, and the lower end of this link is pivotally connected to the free end of a lever 96, and the opposite end of said lever is pivoted as at 97 to the machine frame. Upon this lever 96, intermediate its ends, is provided a roller 98, which rolls around the periphery of a cam 99, and periodically falls into a notch therein and formed by shoulders 99′ and 99″.

As seen in Fig. 7, a roller 100 is journaled in each of the grooves 84′ of the drum to engage the belts 85 in advance of a stick of candy being wrapped, for a purpose to be explained. Upon the legs 2 and 3 are mounted twisting members 101, and upon each end of the drum is provided a spring twisting member 102, one of the twisting members 102 cooperating with one of the twisting members 101 at each end of the stick of candy, as the latter passes through the machine. The members 101 are rigid, while the members 102 yield, and the latter move with the drum while the former remain stationary.

In operation, the shaft 8 is driven through gear 83 rotating the cam 99, the drum 84 and the beveled gear 12. The latter, meshing with beveled gear 14, transmits rotary motion to the shaft 15 and the crank pins 60—61 thereof. The crank pin 18 of this shaft 15 oscillates lever 20, which through link 22 oscillates the large gear wheel 24, and this, in turn, oscillates the wheel 28, through meshing engagement with a small pinion 26, and thus, because of the positive connection 32, giving the endless sprocket chain a back and forth movement, which is transmitted through the connection 52 to the paper feeding plate 34 and gripper 38. The paper from the roll 48, passes between the parts 34 and 38 and when the latter is advanced toward the wrapping mechanism, the paper is firmly gripped between the parts 38 and 34, being maintained in such gripping relation by the detent spring 40 and roller 42 as illustrated in Fig. 1, which figure shows the cam mechanism for the paper gripper as having been just set for the described advanced movement. The paper feeding elements having advanced toward the wrapping mechanism, which is, toward the right hand end as illustrated in Fig. 1, the paper passes between the cutting blades 64 and 65 so that the end of the paper at the limit of feed thereof is substantially coincident with the stop 103 (see Figs. 1 and 2). At this point crank pin 61 has come into engagement with shoulders 62 of lever 57, depressing the same and drawing the cutter operating bar 63 downwardly and with it the upper cutting blade 65 and paper gripper 67. During this downward movement the toothed or roughened lower edge of the paper gripper 67, due to member 69, yieldingly engages the paper in advance of the upper cutting blade, and firmly holds the paper while the upper cutting blade continues its descent in severing the paper. As the cutting mechanism is operated in this manner, the same means causes operation of the candy feeding arm 72 to transmit motion to the U-shaped feeding fingers 76 through the medium of the crank arm 74 and the shaft 75 on which the fingers are mounted. Thus the fingers move from the Fig. 5 position to the Fig. 7 position, at each movement depositing a single stick of candy upon the paper resting on the bars 81. The paper being severed, it readily assumes the position illustrated in Fig. 6 due to the weight of the stick of candy, the latter and the wrapper being arrested from further downward movement by falling upon the resilient supporting arms 82. While in the Fig. 6 position, the roller 86 on the continuously rotating drum 84 is brought into engagement with the toe 87 of the lever 89 to move the plunger 83 to force the stick of candy and its wrapper off the supporting arms 82 from the Fig. 6 position to the Fig. 7 position, whereupon the said roller 86 then engages the heel 88 of the lever 89 to retract the plunger 83 from the Fig. 7 to the Fig. 5 position. Previous to retraction of the plunger 83, however, the roller 98 rides off the periphery of the cam 99 into the cut-out portion formed by walls 99′ and 99″, or the Fig. 7 position, permitting the lever 96 to descend and drawing with it in a downwardly direction the crimping blade 93. This movement of the latter is permitted by the swinging of the crimping blade mounting arm 91. This blade 93 moves downwardly between one of the paper supporting rods 81 and one of the paper guides 80′ just after the plunger 83 has forced the stick of candy and its wrapper to the Fig. 7 position, and while in this position, said blade in lowering engages the upper or right hand end of the sheet of paper and depresses same, tucking that end between the candy and the other end of the wrapper. Meanwhile continued rotation of the drum 84 in the direction of the arrow, or clockways, causes, through frictional engagement with the stick of candy and its wrapper, rotation of the latter in the direction of the arrow in Fig. 7, causing the same to roll down the bands 85 toward the final point of discharge. Preliminary to the entry of the stick of candy and wrapper between the drum and the bands 85, the way is opened by the drum carried rollers 100 which lift the bands and prevent the same from sticking to the drum. When the cutter blade was depressed by the position of the crank pin 61, the other crank pin 60 had raised the other lever 56 and

through the link 56′ had raised the right hand end of the shipper bar 46 and brought the roller 47 into the path of the end 43b of the cam 43 of the paper feeding mechanism, so that at the limit of the advance movement of the paper feeding mechanism, contact between the cam end 43b and the roller 47 caused movement of the cam to the right and upwardly, thereby unlocking the presser foot 38 from engagement with the paper.

At this point, the crank pin 18 has moved to a position to swing the lever 20 in an opposite direction to cause reversal of motion of the gears and chain that operate the paper feeding mechanism, whereupon the paper feeding means retraces its movement, passing to the left hand or Fig. 1 position and without feeding the paper, but returning to a position to engage and feed another section of the paper to the wrapping mechanism. About this time, it will be remembered that the stick of candy has begun to pass along the bands 85, during rotation thereof by the drum 84. As the stick of candy reaches the Fig. 5 position, the ends of the wrapper come into contact with the stationary twisting members 101 and move down the same while the stick of candy and body portion of the wrapper are rotated by contact with the drum 84. At some point in the length of the members 101 while the ends of the wrapper pass therealong, the spring twisting members 102 which are carried by the drum 84 come into engagement with the said ends of the wrapper, so that the ends are firmly held between said members 101 and 102 while the body of the wrapper and the stick of candy are rotated, thus causing twisting of the wrapper ends. The wrapper is usually of paraffined paper, and the twisting members 101 and 102 of polished metal, so that the spring members 102 while pressing the wrapper ends against the members 101 will freely slide over the wrapper ends without producing enough friction to undesirably rotate the wrapper ends. In other words, there is no slippage between the drum 84 and the stick of candy to speak of, while there is virtually maximum slippage between the spring members 102 and the wrapper ends, so that the wrapper ends are virtually or entirely held against turning while the stick of candy and body of the wrapper are being rotated. As the wrapping operation is being completed and the article ejected or ready for ejection from the machine, the paper from the roll 48 has again been advanced while the knives or blades were separated and is ready to be severed and to again receive a stick of candy to be wrapped. As soon as the crank pin 61 reaches a position to move the parts to operate the cutting mechanism, the crank pin 18 will have reached a position to have moved the parts to a position where the paper feeding carriage will have substantially returned to its retracted position, or the left hand position shown in Fig. 1, and substantially at this time, the crank pin 60 comes to a position to raise the lever 56 and through the link 56′ to shift the shipper to raise the left hand end roller 45 into position to operate the cam 43 of the paper feeding mechanism in a reverse direction to bring the presser foot 38 down firmly onto the sheet of paper so that the paper will be again fed to the wrapping mechanism upon the next advance movement of the paper feeding carriage.

What is claimed:

1. In a candy wrapping machine, a machine frame, means on said frame for supporting a paper roll having a strip unwound therefrom, a power shaft journaled in the machine frame, meshing gears journaled on said frame, operative connections between the power shaft and gears for effecting oscillatory movement thereof, and means operated by said gears and associated with the paper strip for unwinding the same from the roll and delivering the strip to candy wrapping mechanism in a step by step movement.

2. In a candy wrapping machine, a machine frame, means on said frame for supporting a paper roll having a strip unwound therefrom, a power shaft journaled in the machine frame, meshing gears journaled on said frame, operative connections between the power shaft and gears for effecting oscillatory movement thereof, means operated by said gears and associated with the paper strip for unwinding the same from the roll and delivering the strip to candy wrapping mechanism in a step by step movement, said means including a wheel connected to one of said gears, sprocket wheels journaled in spaced relation on said frame, a sprocket chain passing over said sprocket wheels and fixed at a point to the aforesaid wheel, and means fixed to said sprocket chain and adapted to engage the paper strip in one direction of movement for feeding the same.

3. In a candy wrapping machine, a machine frame, means on said frame for supporting a paper roll having a strip unwound therefrom, a power shaft journaled in the machine frame, meshing gears journaled on said frame, operative connections between the power shaft and gears for effecting oscillatory movement thereof, means operated by said gears and associated with the paper strip for unwinding the same from the roll and delivering the strip to candy wrapping mechanism in a step by step movement, said means including a wheel connected to one of said gears, sprocket wheels journaled in spaced relation on said frame, a sprocket chain passing over said sprocket wheels and fixed at a point to the

aforesaid wheels, and a carriage fixed to said chain intermediate the sprocket wheels adapted for engaging the strip of paper in one direction of movement for feeding the same.

4. In a candy wrapping machine, the construction called for by claim 3, characterized in that the carriage embodies a pivotally mounted presser-foot which engage the paper strip for feeding the same.

5. In a candy wrapping machine, the construction called for by claim 3, characterized in that the carriage embodies a pivotally mounted presser-foot which engages the paper strip for feeding the same, and means for positively shifting the presser-foot from an engaging to a disengaging position.

6. In a candy wrapping machine, the combination of means for feeding a paper strip from a roll for wrapping about candy sticks, a carriage embodying a pivotally mounted presser-foot which engages the paper strip for feeding the same, a shaft upon which the presser-foot is mounted, a crescent-shaped cam fixed to said shaft, and a shipper arm pivotally mounted on the frame and having operative connections with the power shaft with the opposite ends thereof alternately moved to positions for engagement with the cam adjacent its limits of movements in opposite directions for swinging the same to move the presser-foot from an engaging position to a disengaging position relative to the paper strip.

7. In a candy wrapping machine, the construction called for by claim 6 characterized in that a spring device carried by the carriage is adjustably connected to said cam for holding the same in its shifted position.

8. In a candy wrapping machine, the construction called for by claim 6, characterized in that a spring device is carried by the carriage, said cam having an arcuate slot therein extending to opposite sides of the pivotal mounting thereof, and a roller carried by the spring device working in said slot and adapted when shifted to either end thereof, for holding the cam and presser-foot in their shifted positions.

9. In a candy wrapping machine, a machine frame, said frame being constructed to support a roll of paper having a strip delivered therefrom, means associated with said frame for feeding the strip in a step by step movement, means for cutting the strip into separate sheets, an inclined hopper for supporting a plurality of sticks of candy, means associated with said hopper for singly feeding a candy stick therefrom and delivering the same onto a cut sheet of paper and means disposed beneath said hopper for wrapping the cut sheet of paper on the stick candy, the means for controlling the discharge of candy from the hopper embodying a shaft journaled beneath said hopper, fingers carried by the ends of said shaft extending into said hopper for engaging a single stick of candy to discharge the same and preventing the further discharge of the candy and means for oscillating said shaft to position the fingers for engagement with the sticks of candy.

10. In a candy wrapping machine, a machine frame, said frame being constructed to support a roll of paper having a strip delivered therefrom, means associated with said frame for feeding the strip in a step by step movement, means for cutting the strip into separate sheets, an inclined hopper for supporting a plurality of sticks of candy, means associated with said hopper for singly feeding a candy stick therefrom and delivering the same onto a cut sheet of paper and means disposed beneath said hopper for wrapping the cut sheet of paper on the candy stick, said wrapping means including a pair of rods disposed beneath said hopper to support the sheet of paper, means to feed the candy stick to the paper, a sub-platform receiving the paper and candy, means for discharging the paper and candy from said platform, and means for completely wrapping the candy and discharging the same from the machine.

11. In a candy wrapping machine, a machine frame, paper feeding means, a hopper for supporting a plurality of sticks of candy, wrapping means including a pair of rods disposed beneath said hopper to support the paper, a sub-platform receiving the paper and candy, a power shaft journaled in said frame, a drum fixed to said shaft, a disc having a peripheral segment removed, fixed to said shaft, said drum having annular peripheral grooves therein, a roller journaled in one of said grooves, a lever pivoted to said frame, a plunger connected to the upper end of said lever and working over said platform for delivering the candy and paper therefrom, said lever having spaced cam faces adjacent the lower end thereof to be engaged by the roller supported on the drum for moving the lever on its pivot to effect reciprocation of said plunger, a pivotally mounted crimping blade shiftably supported on the frame, a lever and link connection between the blade support and frame with the lever resting upon said disc to hold the crimping blade elevated, the engagement between said lever and disc embodying a roller carried by said lever adapted to be received in the cutter-away portion of said disc to effect lowering movement of the crimping blade for engagement with one side of the paper sheet for folding the same around a stick of candy, and means associated with said drum for completely wrapping the candy and delivering the same from the machine.

12. In a candy wrapping machine, the

construction called for by claim 11, characterized in that the means for completely wrapping the candy embodies a pair of belts associated with a portion of the periphery of said drum.

13. In a candy wrapping machine, the construction called for by claim 12, characterized in that cooperating means are carried by the machine frame and drum for engaging the projecting ends of the paper sheet for twisting the same.

14. In a candy wrapping machine, the construction called for by claim 12, characterized in that rigid devices carried by the machine frame cooperate with spring devices carried by the drum for effecting the twisting of the projecting ends of the paper sheet.

15. In a candy wrapping machine, a machine frame, a drum journalled therein, means for delivering a candy stick enclosed by a paper wrapper to the periphery of the drum with the ends of the paper extending beyond the opposite ends of the candy stick, a flexible element enclosing a side of the drum with the candy stick moved between the drum and element and cooperating devices carried by the frame and drum for twisting the ends of the paper wrapper.

16. In a candy wrapping machine, a machine frame, a drum journalled therein, means for delivering a candy stick enclosed by a paper wrapper to the periphery of the drum with the ends of the paper extending beyond the opposite ends of the candy stick, a flexible element enclosing a side of the drum with the candy stick moved between the drum and element and cooperating devices carried by the frame and drum for twisting the ends of the paper wrapper, the cooperating devices including a rigid member carried by the frame and a resilient member carried by the drum.

17. In a candy wrapping machine, a machine frame, a drum journalled therein, means for delivering a candy stick enclosed by a paper wrapper to the periphery of the drum with the ends of the paper extending beyond the opposite ends of the candy stick, a flexible element enclosing a side of the drum with the candy stick moved between the drum and element and cooperating devices carried by the frame and drum for twisting the ends of the paper wrapper, the cooperating devices including resilient arcuate strip members carried by the drum with their intermediate portion spaced outwardly of the drum and outwardly of the inner side of the candy stick.

18. In a candy wrapping machine, a machine frame, a drum journalled therein, means for delivering a candy stick enclosed by a paper wrapper to the periphery of the drum with the ends of the paper extending beyond the opposite ends of the candy stick, a flexible element enclosing a side of the drum with the candy stick moved between the drum and element and cooperating devices carried by the frame and drum for twisting the ends of the paper wrapper, the cooperating devices including resilient arcuate strip members carried by the drum with their intermediate portion spaced outwardly of the drum and outwardly of the inner side of the candy stick, and rigid members carried by the frame arranged in the path of movement of the candy stick with the outer side of the candy stick adapted to be disposed outwardly thereof when the cooperating devices are engaged in twisting the ends of the paper wrapper.

In testimony whereof she affixes her signature.

MARY E. KENNA,
Executrix of Michael P. Kenna estate.