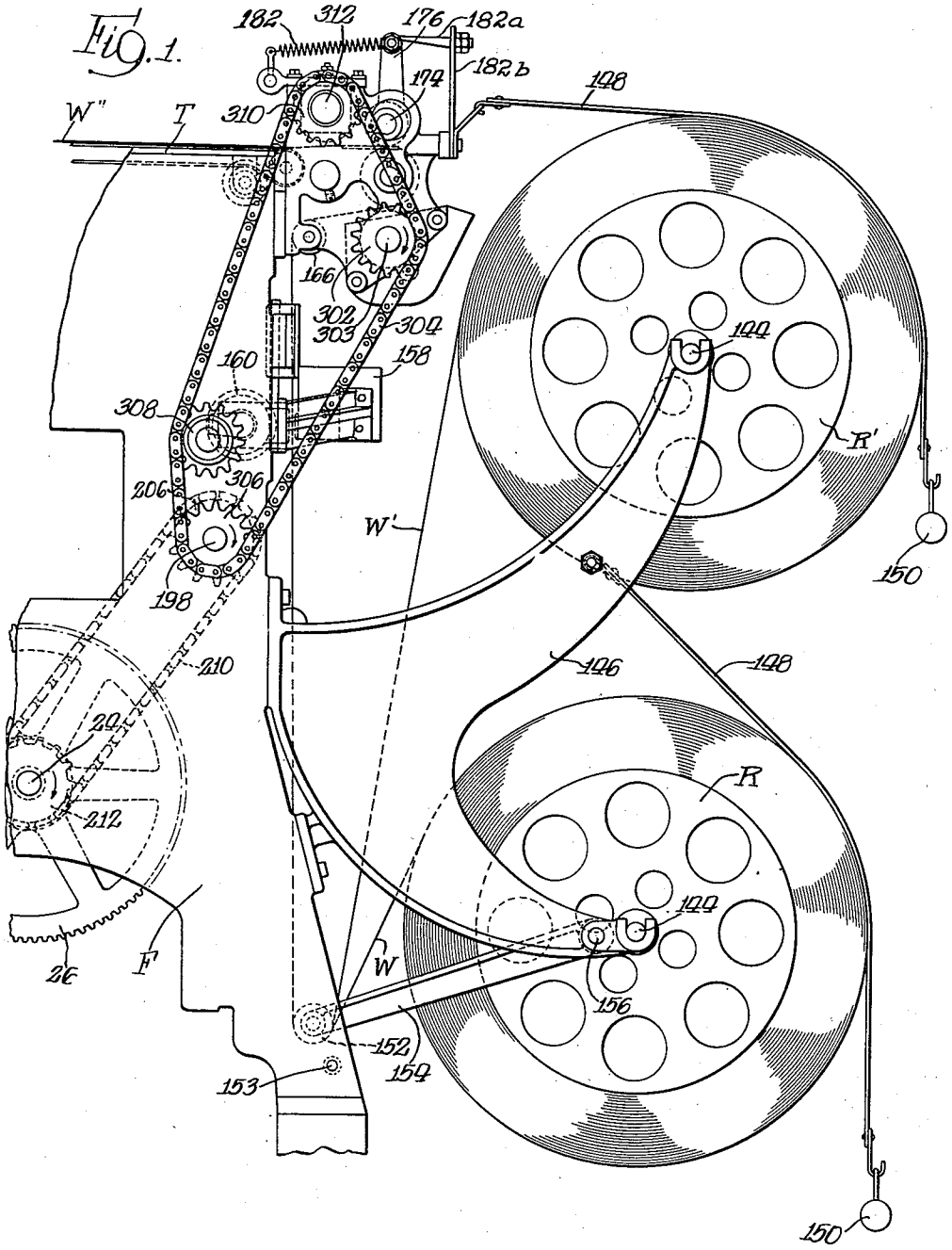
May 12, 1942. O. SANDBERG 2,283,096

WRAPPING PAPER CONTROL MECHANISM

Filed Feb. 5, 1940 4 Sheets-Sheet 1

Fig. 1.



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May 12, 1942. O. SANDBERG 2,283,096

WRAPPING PAPER CONTROL MECHANISM

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Fig. 2.

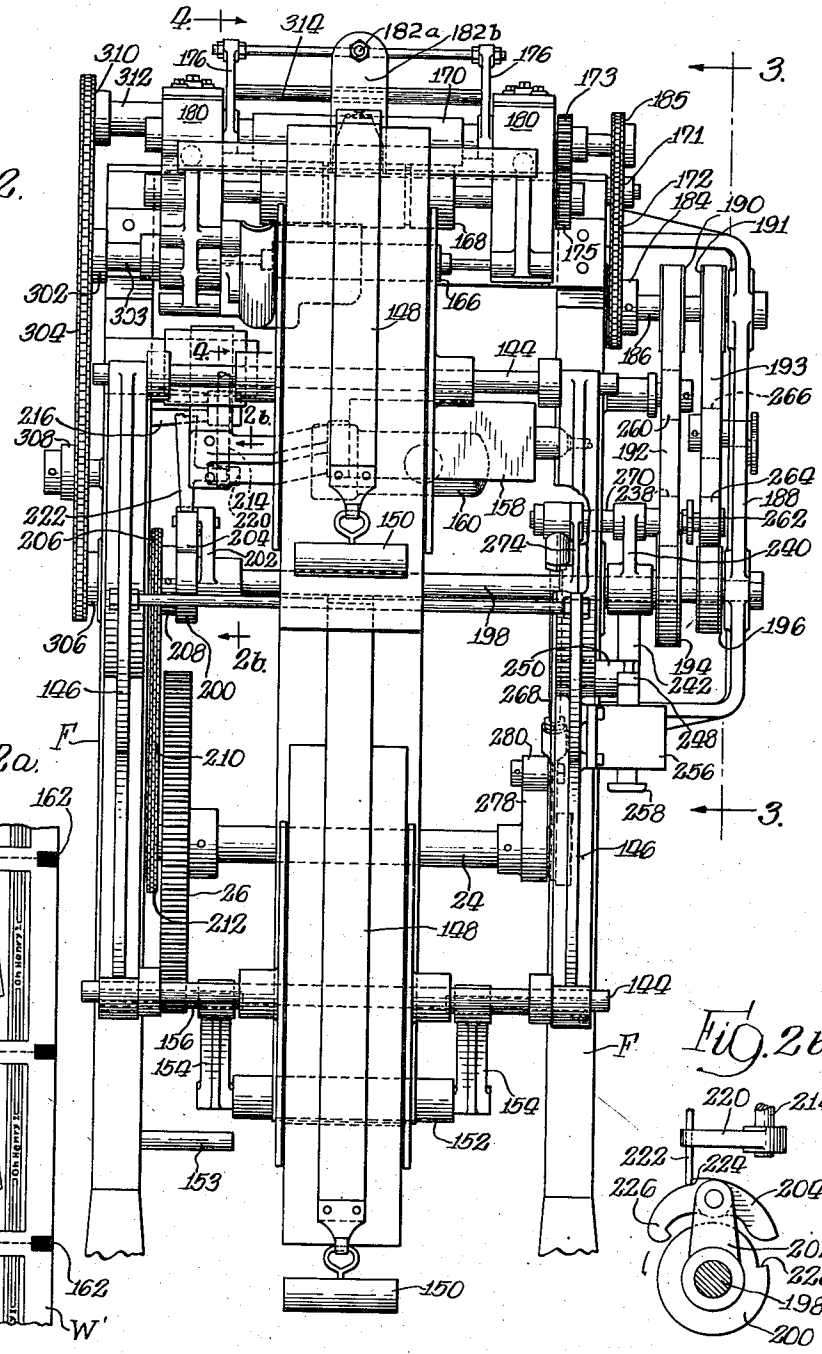


Fig. 2a.

Fig. 2b.

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WRAPPING PAPER CONTROL MECHANISM

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Fig. 3.

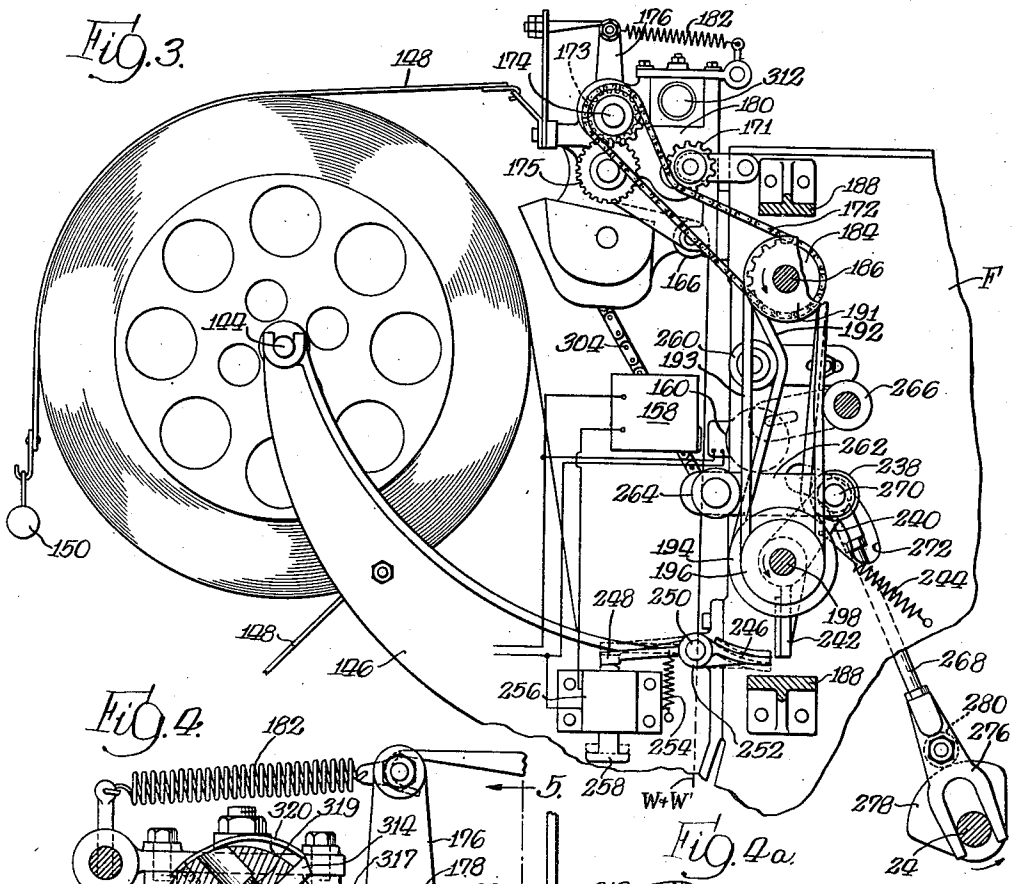


Fig. 4.

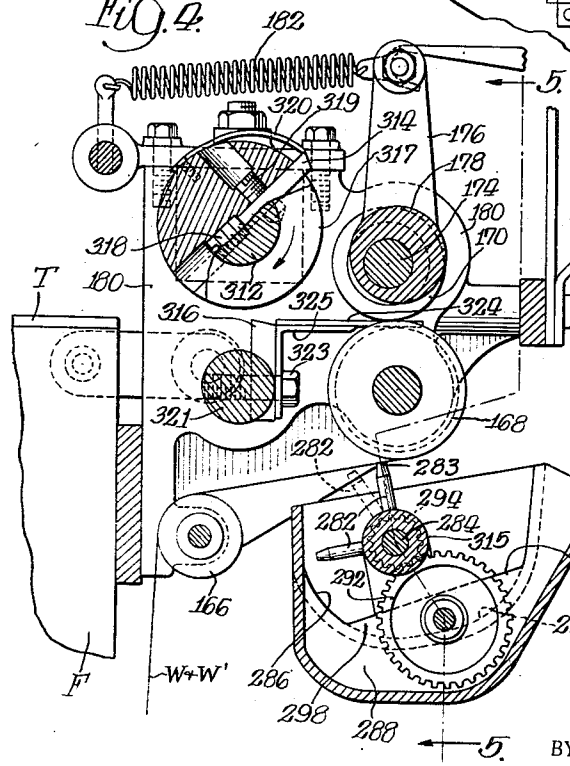


Fig. 4a.

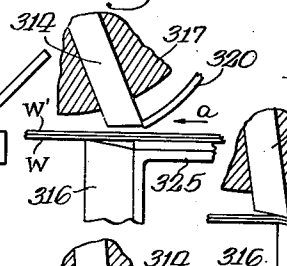


Fig. 4b.

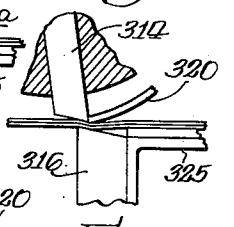


Fig. 4c.

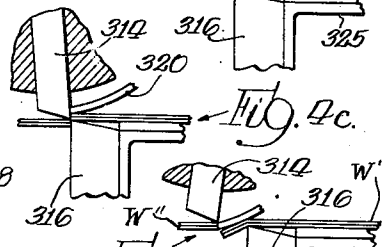


Fig. 4d.

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WRAPPING PAPER CONTROL MECHANISM

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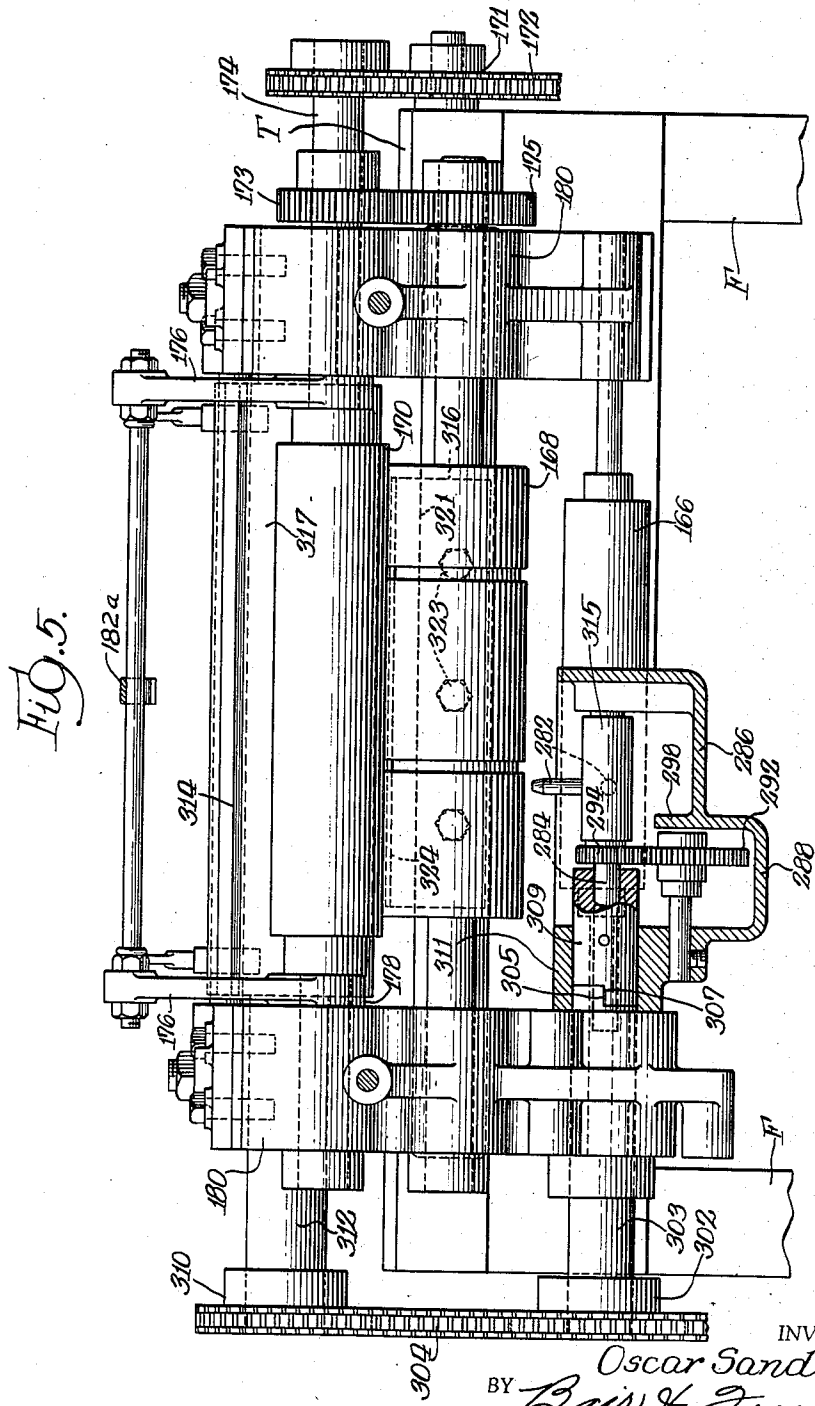


Fig. 5.

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Patented May 12, 1942

2,283,096

UNITED STATES PATENT OFFICE

2,283,096

WRAPPING PAPER CONTROL MECHANISM

Oscar Sandberg, Defiance, Ohio, assignor to Modern Equipment Corporation, Defiance, Ohio, a corporation of Ohio

Application February 5, 1940, Serial No. 317,369

13 Claims. (Cl. 164—68)

My present application has to do with a mechanism for controlling wrapping paper supplied to a machine for wrapping articles such as candy bars and the like and is a continuation-in-part of my copending application, Serial No. 179,260, filed December 11, 1937, now Patent No. 2,208,776, issued July 23, 1940.

One object of the invention is to provide means for supporting two webs of wrapping paper, means for cutting the webs into wrappers and feeding the wrappers to position for wrapping the articles therein, the feeding mechanism including an electric eye viewing mechanism operated by marks on the web of wrapping paper and operative through speed change mechanism that propels the web of paper into the wrapping machine to change the speed thereof and thereby keep periodic advertising material on the wrapping paper in step with the bars as they are fed to wrapping position so that the advertising material will always be centered on the bars, regardless of irregularities in paper feed as caused by slippage and other factors.

Another object is to provide the speed changing mechanism in the form of a shaft driven by a pair of belts, one at a higher speed than required and the other at a relatively lower speed, the high speed belt being normally the controlling factor in paper feed and the slow speed belt being a modifying factor, operable if required for each of the wrappers to be cut from the web, the electric eye viewing mechanism being operatively associated with the slow speed belt to bring it into play and to vary the time period of such play, depending upon requirements determined by the amount that each wrapper is out of step with the wrapping mechanism.

A further object is to provide means for cutting the web of wrapping paper into sheets or "wrappers" somewhat longer than the bar, the cutting mechanism being associated and timed with the web feeding mechanism and thereby adjusted for cutting the web at the proper points by the electric eye viewing mechanism.

Still another object is to provide wrapping paper control mechanism in which the web of wrapping material is fed normally at a higher speed than required to compensate for slippage and to provide means for slowing down the speed for each wrapper to be cut from the web so that the wrapper is cut at the desired place on the web, this being particularly desirable where there are repeated patterns on the web and there is to be one pattern for each article wrapped.

More particularly, it is an object of my present invention to provide a simple speed changing mechanism comprising two sets of V pulleys and belts, one normally operating at high speed and the other one at a lower speed, a simple arrangement of belt tightening rollers being provided to simultaneously loosen the high speed belt and tighten the low speed belt, and the rollers being operated in response to the passage of complete patterns on the web past a photoelectric viewing means.

Still another object is to provide a cam means to reset the belts to normal position after the photoelectric viewing means has caused them to shift from high speed to low speed position, the relation of the cam and period of actuation by the photoelectric viewing means determining the period of time during which the low speed operation is in effect.

A still further object is to provide a simple arrangement of reels on which the web of wrapping material may be mounted for supply to the web feeding and cutting means.

It is a further object of my invention to provide simple mechanism for applying two spots of adhesive to each wrapper before the wrapper assumes wrapping position.

Another object is to provide a reservoir for the adhesive and an adhesive pot in which the adhesive is deposited to the proper depth for being picked up by the ends of rotating pins which then contact with the wrapping web to deposit the spots of adhesive thereon.

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 drawings. Although the invention is susceptible of a variety of embodiments, it is unnecessary to fully describe and illustrate more than one in order to give a full understanding of the invention both from its structural and functional standpoints. Accordingly, I have illustrated a preferred and desirable embodiment of the invention in the accompanying drawings, in which:

Figure 1 is a rear elevation of a wrapping paper control mechanism embodying my invention and showing it attached to a wrapping machine of a second copending application, Serial No. 317,370, filed February 5, 1940, which is an improvement over my application Serial No. 179,260 hereinbefore mentioned. Said second co-

pending application illustrates a wrapping machine designed to receive wrappers from the mechanism illustrated in the present application, and I will hereinafter refer to it as "said second copending application."

Figure 2 is a side elevation looking from the right side of Figure 1;

Figure 2*a* illustrates a section of the wrapping paper or web used in my machine and controlled by the control mechanism herein described;

Figure 2*b* is an enlarged sectional view on the line 2*b*—2*b* of Figure 2, showing a clutch device for the paper feeding and cutting mechanism;

Figure 3 is a sectional view on the line **3**—**3** of Figure 2; showing particularly the feed rolls, the cutting means and the adhesive applying mechanism;

Figure 4 is a sectional view on the line **4**—**4** of Figure 2,

Figures 4*a*, 4*b*, 4*c* and 4*d* are diagrammatic views showing successive steps in the cutting operation of the web of wrapping material as it passes through the machine, and

Figure 5 is a sectional view on the line **5**—**5** of Figure 4.

The wrapping machines of said copending applications are adapted for wrapping articles of irregular shape, such as candy bars and the like. The mechanism of this application is adapted to feed a web of wrapping material to the wrapping machines, to cut the web into individual wrappers and to synchronize the feeding mechanism with the cutting means so that cutting of the wrappers from the web is performed at the desired point even though the web of material may slip at times relative to its feeding means.

Referring now to the specific construction of the mechanism, I provide a pair of vertical frame members F, suitably and rigidly connected together and provided at their tops with a table T. Journaled in the frame members F is a main drive shaft **24**. The drive shaft **24** has secured thereto a gear **26**.

The gear is driven in any suitable manner, such as illustrated in said second copending application. Wrappers for the articles wrapped in the wrapping machine of said second application are supplied by the device of the present application in the form of inner and outer webs W and W' of the proper width and continuous length wound from reels R and R'. The reels R and R' have pintles **144** supported for rotation in seats of a pair of brackets **146**. To prevent excess rotation of the rolls of web W and W', flexible straps **148** pass frictionally thereover and terminate in weights **150**. The webs W and W' pass under a weight roller **152** carried by a pair of arms **154** pivoted at **156** to the frame members F. A stop pin **153** is provided for the roller **152** to engage in its extreme lower position.

After passing under the roller **152**, the webs W and W' extend upwardly between an electric eye mechanism **158** and a light source therefor indicated at **160**. The purpose of the electric eye mechanism is to have marks **162** on the web W' (see Figure 2*a*) pass the electric eye and the eye in turn regulate the speed of feeding the web and determine the position at which it is cut into individual wrappers W'' before the wrappers are wrapped around the articles to be wrapped by the wrapping machine. The desirable point of cutting is indicated by dotted lines **164** so that the web, printed with a repeated pattern (one for each bar), will be cut exactly between the patterns. The web W' may be either Cellophane or waxed paper printed with the trade name of the contents and of the maker or distributor thereof as is usually done, while the inner web W may be tissue, waxed paper, Cellophane or the like.

The webs W and W', after leaving the electric eye **158**, pass over an idler roller **166** and then around a feed roller **168** (see Figure 4). Above the roller **168**, a drive roller **170** is provided, at least the roller **170** being of rubber or the like to provide a good grip on the webs W and W' and to propel them toward the table T when the roller **170** is rotated clockwise by sprockets **184** and **185** and a chain **172**. The roller **168** is simultaneously rotated counterclockwise through gears **173** and **175**.

For maintaining proper pressure between the rollers **168** and **170**, the shaft **174** of the roller **170** is carried at its ends by eccentric levers **176**. The eccentric levers **176** are pivoted at their centers by means of pintles **178** to brackets **180**, which form the end plates for supporting the rollers **168** and **170**. The levers **176** are urged in the proper direction for moving the roller **170** toward the roller **168** by springs **182**, such movement being limited by a limiting hook **182**[a]. The hook **182**[a] is supported by a bracket **182**[b].

The sprocket **184** for driving the chain **172** is mounted on a shaft **186**. The shaft **186** is journaled in the front frame member F and in a bracket **188** secured thereto, as shown in Figure 3. The shaft **186** has secured thereto a high speed V pulley **190** and a low speed V pulley **191**. For driving the V pulleys **190** and **191**, I provide a pair of belts **192** and **193**. The belt **192** extends around a V pulley **194** and the belt **193** extends around a smaller V pulley **196**. The pulleys **194** and **196** are secured to a countershaft **198**.

The countershaft in turn is driven through a clutch mechanism (consisting of a notched disc **200**, an arm **202** and a pivoted dog **204**) from a sprocket wheel **206**. The sprocket wheel **206** is loose on the shaft **198** and is retained in position by a collar **208**. The sprocket wheel **206** is driven by a chain **210** from a sprocket wheel **212**. The sprocket wheel **212** is secured to the main shaft **24**.

The clutch consisting of the parts **200**, **202** and **204** is adapted to be released and the shaft **198** to thereby be operated only when there is an article approaching position to be wrapped. The mechanism for accomplishing this result includes a vertical rock shaft **214** journaled in brackets **216** extending from the rear frame member F.

At its upper end, the rock shaft **214** is provided with means to rock the rock shaft and swing a lever **220** at its lower end to engage and swing a lever **222** out of position in front of a shoulder **224** on the dog **204**. Such means is shown as a lever **218** on a rock shaft **214** in my copending application Serial No. 317,370 (Figure 3), the lever projecting to a point to be engaged by articles being wrapped as they are advanced by a conveyor. Gravity causes the dog **204** to drop after the lever **222** has been swung out of position in front of the shoulder **224** and a hook **226** on the dog to engage the notch **228** in the disc **200** as soon as the notch comes to a position of registry with the hook. Thereupon the arm **202** and the shaft **198** will be rotated in unison.

Each time the shaft **198** is rotated one revolution, the pulleys **194** and **196** are also rotated one revolution. The belt **192** is normally the driving factor for the shaft **186**. For this pur-

pose, an idler 238 is provided (see Figure 3). The idler 238 is mounted on a shaft 270 carried by an arm 240 pivoted on the shaft 198. The arm 240 has a downward extension 242 normally engaged with a stop 246 by a spring 244. The stop 246 is secured to a rocker arm 248 pivoted at 250 on a bracket 252. A spring 254 normally urges the rocker arm 248 to the full line position shown.

For moving the arm 248 to the dotted position in Figure 3, I provide a solenoid 256 and an armature 258 to be elevated thereby when the solenoid is energized. A second idler 260 is provided for the high speed belt 192 and this idler is adjustable for the purpose of tightening the belt to the desired degree for proper driving traction when the idler 238 is in the position of Figure 3.

The low speed belt 193 is normally loose, as illustrated, and is adapted to be tightened simultaneously with the loosening of the high speed belt 192. This is accomplished by mounting a link 262 on the lever 240 and having the lever 262 carry an idler 264 for the belt 193. Also for the belt 193, an adjustable idler 266 is provided to compensate for stretching of the belt as the machine is operated.

From the foregoing description, it will be obvious that the spring 244 will loosen the idler pulley 238 and tighten the idler pulley 264 whenever the solenoid 256 is energized. There would be nothing, however, to return the idlers to their initial position. To accomplish this purpose, I provide the following described mechanism.

A rod 268 is pivoted at its upper end to the shaft 270. The shaft 270 extends rearwardly from the lever 240 through an arcuate slot 272 in the front frame member F. Back of the front frame member, a lever 274 similar to the lever 240 is pivoted on the shaft 198 and supports the shaft 270 so that it can be swung through its operating cycle without binding. The lower end of the rod 268 terminates in a fork 276 straddling the main shaft 24.

The main shaft has a cam 278 thereon for propelling the rod 268 upwardly through the medium of a roller 280 carried by the fork 276 and engaging the cam surface of the cam. If the stop member 246 were to remain in the dotted position of Figure 3, it will be obvious that during a period extending over about two-thirds of the revolution of the main shaft 24, the lever 240 would be shifted by the spring 244 to loosen the high speed belt 192 and tighten the low speed belt 193. The duration of such period is shortened, however, by actuating the solenoid 256 so that the stop 246 is removed from in front of the extension 242 of the lever 240 prior to the expiration of the two-thirds period of revolution mentioned. The relative position in the two-thirds period, where the solenoid 256 operates, would determine the duration of the last portion of that period effective to loosen the high speed belt and tighten the low speed belt. The speed of the shaft 186 and thereby of the feed rollers 168 and 170 is thereby governed in accordance with the marks 162 on the wrapper web W' in a manner which will appear when describing the operation of the machine in detail.

In Figure 3, I have also shown electrical connections from a source of current supply to the electric eye 158, the light source 160 and the solenoid 256. No attempt has been made to go into detail, the essential characteristics being continuous energization of the light source 160 and operation of the solenoid 256 only when the electric eye 158 is actuated and thereby establishes a circuit for the solenoid.

As the webs W and W' pass from the roller 166 to the roller 168, two spots of adhesive 283 are applied to each wrapper section by adhesive applying pins 282 (see Figure 4). The pins 282 are rotated by a shaft 284 and dip into an adhesive pot 286. The pot 286 has a relatively deep reservoir portion 288. The adhesive is picked up from the relatively deep part 288 of the adhesive pot 286 and transferred into the adhesive pot proper by a gear 292 driven by a pinion 294. The pinion 294 is mounted on the shaft 284.

The adhesive, carried upwardly by the gear 292, passes into the adhesive pot proper over a wall 298 which serves to maintain the adhesive at a predetermined level for depositing the proper amount thereof on the pins 282. The pins 282, as they rotate, contact with the web W', thereby placing two spots of adhesive thereon at the positions 283 indicated in Figure 2a. The shaft 284 of the adhesive applying mechanism is driven by a sprocket 302 (see Figure 1).

Referring to Figure 5, it will be noted that the sprocket 302 is mounted on a shaft 303. The shaft 303 is journaled in one of the end plates 180 and terminates in a Z shaped cut at 305 coacting with another Z shaped cut at 307 of a sleeve 309. The sleeve 309 is journaled in a bearing 311 of the glue pot 286 and is secured to the shaft 284. The shaft 284 has the pinion 294 mounted on it and also a hub 315 which carries the pins 282.

The sprocket 302 is driven by a chain 304 and a sprocket 306. The sprocket 306 is mounted on the shaft 198 which is driven intermittently by the clutch mechanism 200, 202, 204. The chain 304 also extends around an idler sprocket 308 and a cutter drive sprocket 310 on a shaft 312.

The cutter shaft 312 has a cutter roll 313 thereon and a blade 314 projects from the roll (see Figure 4). The blade 314 is adapted to coact with a stationary blade 316 for severing the webs W and W' on the dotted line 164 of Figure 2a. The blade 314 is set in an arbor 317, as shown in Figure 4, with set screws 318 to adjust it radially. Other set screws 319 are provided to retain the adjustment.

Trailing the blade 314 is a semicylindrical leaf spring member 320 which serves an important function in the web cutting operation, as will hereinafter appear. The stationary blade 316 is secured to a rigid cross rod 321 by cap screws 323. A web guide plate 324 is supported back of the blade 316 by an angle bar 325.

The webs W and W' are propelled between the cutting blades 314 and 316 onto the table T and individual wrappers indicated as W'' are sheared therefrom. The wrappers W'' are then propelled to wrapping position by mechanism of the machine shown in said second copending application.

Practical operation

In the operation of my wrapping paper control mechanism, assuming that the shaft 24 is rotating, when an article reaches position to be wrapped, it rocks the clutch operating rock shaft 214 and thereby swings the clutch operating arm 222 to a position that permits the hook 226 of the dog 204 to engage in the notch of the constantly rotating clutch disc 200. This will cause the shaft 198 to rotate one revolution if only one article passes by and rocks the shaft 214, or to

keep it continuously rotating as long as there are articles passing in succession to wrapping position. In this way, a wrapper is cut from the web and fed to wrapping position only when an article also comes to wrapping position.

The web feeding mechanism is normally operated by the high speed belt 192 at a speed somewhat higher than required to feed one wrapper W'' to the machine during one revolution of the shaft 198, which corresponds to one article coming to wrapping position. The purpose of this is to compensate for any possible slippage of the webs as they are propelled to the wrapping machine. To cause the cutter bar 314 to function at the proper point in the length of the webs (at the dotted line 164 in Figure 2a), the electric eye viewing mechanism 158 is provided.

Whenever one of the marks 162 of the web W passes the eye, it effects energization of the solenoid 256. Energization of the solenoid depresses the stop arm 246 (see Figure 3, dotted position) to permit the high speed belt 192 to be loosened and the low speed belt 193 to be tightened, thus slowing down, for a variable period of time, the rotation of the shaft 186 driven from the shaft 198. Whenever one of the marks 162 is the maximum distance ahead of where it should be (resulting from no slippage), then the maximum period of speed reducing is effective. When there is slippage, then the mark will not be so far ahead of its required position for proper operation of the blade 314 at the dotted line 164 and consequently the solenoid 256 will be energized at a relatively later period in the rotation of the shaft 198, thereby reducing the time period of speed reducing of the mechanism.

During each revolution of the shaft 198 (which rotates at the same speed as the main shaft 24), the solenoid will be energized to permit the spring 244 to shift the mechanism to slow speed position. The cam 278, each revolution of the main shaft, will reset the mechanism to high speed position until the solenoid is again energized.

I have designed the cutting blades 314 and 316, together with their associated parts shown in Figures 4, 4a, 4b, 4c and 4d to provide a minimum of interference with the movement of the webs W and W' as they are fed therethrough. In operation, the arbor 317 rotates clockwise in Figure 4a as the webs W and W' are fed in the direction of the arrow a. The spring blade 320, it will be noted, resiliently engages the webs against the plate 324 to aid in the movement of the webs as the blade 314 springs toward the blade 316, as in Figure 4b. Finally, the webs are sheared off between the trailing corners of the blades 314 and 316, as shown in Figure 4c, the blade 320 springing in toward the arbor 313 as it attempts to pinch the web between itself and the blade 316. As soon as the blade 316 is passed by the blade 320, then the blade 320 will swing outwardly again (as in Figure 4d) to aid in propelling the webs W and W' onto the table T. The arbor 317 being properly timed relative to the speed of feed of the webs makes it possible to quickly shear the webs into individual wrappers as they are propelled onto the table T by the feed rollers 168 and 170 without interference with their movement.

The webs W and W' as they are fed onto the table T by the feed rollers 168 and 170 are engaged by mechanism of the wrapping machine shown in said second copending application. By the time the cutting blade 314 severs the wrapper W'' from the webs W and W', such mechanism has a good grip on the wrapper for effecting movement thereof to the desired position in the wrapping machine.

While I have shown a particular embodiment of my invention, it will be understood of course that I do not wish to be limited thereto since many modifications may be made, and I therefore contemplate by the claims appended hereto to cover any such modifications or substitutions of mechanical equivalents as fall within the true spirit and scope of my invention without sacrificing any of its advantages.

I claim as new and desire to secure by Letters Patent of the United States:

1. In wrapping paper control mechanism, wrapper feed means comprising a pair of feed rolls frictionally engaging a web of wrapping paper to feed the same, cutting means for cutting the wrapping paper into individual wrappers, a source of power, a clutch between said source and said rolls and cutting means, and means for transmitting power from said clutch to said rolls, said transmitting means being adapted to drive said rolls at increased or lessened speed and comprising a drive shaft controlled by said clutch and having a set of pulleys of different diameters thereon, a second shaft, means drivingly connecting said feed rolls with said second shaft, said second shaft having a set of pulleys thereon in alignment with the pulleys on said drive shaft, belts connecting said drive shaft pulleys with said second shaft pulleys, said belts being loose on said pulleys whereby insufficient traction is afforded to transmit power from one set to the other, means for selectively tightening said belts to render them operable to transmit power whereby to drive said second shaft and said rolls at different speeds and comprising belt tightening rollers associated with each of said belts, and means including a photoelectric device responsive to the position of the wrapping paper with respect to said cutting means for selectively engaging the belt tightening rollers with their respective belts to tighten the same.

2. In wrapping paper control mechanism, wrapper feed means comprising feed rolls engaging a web of wrapping paper to feed the same, cutting means for cutting the wrapping paper into individual wrappers, a source of power, said cutting means being driven thereby, and means for transmitting power from said source to said rolls by driving said rolls at lessened speed, said last means comprising a drive shaft operated by said power means and having a set of pulleys of different diameters thereon, a second shaft, means drivingly connecting said feed rolls with said second shaft, said second shaft having a set of pulleys thereon in alignment with the pulleys on said drive shaft, belts connecting said drive shaft pulleys with said second shaft pulleys, one of said belts being normally tight and the other normally loose on said pulleys whereby insufficient traction is afforded to transmit power through the loose belt, means for selectively tightening said loose belt and simultaneously loosening the tight belt to render the loose belt operable to transmt power whereby to drive said second shaft and said rolls at a slower speed and comprising belt tightening rollers associated with each of said belts, and means including a photoelectric device responsive to the position of the wrapping paper with respect to said cutting

means for selectively engaging the belt tightening roller of the loose belt with its belt and disengaging the belt tightening pulley of the tight belt from its belt.

3. In a wrapper feed mechanism, feed rolls engaging a web of wrapping material to feed the same, means for driving said rolls normally at a higher speed than required and comprising a drive shaft and power transmitting means comprising high speed and low speed belts between said rolls and drive shaft, said belts being loose, idlers for said belts, that one of said idlers for the high speed belt being normally in position to tighten its belt, means to periodically reduce the speed of said rolls to a lower speed than required comprising means to position said idler to loosen its belt and to position the other idler to tighten the low speed belt, electromagnetic means adapted to initiate such last mentioned positioning of said idlers from high to low speed, a photoelectric viewing means periodically viewing spaced spots on said web and actuating said electromagnetic means in response to impulses originating in said photoelectric means, and a continuously driven rotatable cam to permit such positioning initiated by said electromagnetic means and to re-position said idlers in their high speed position.

4. In a wrapper feeding and cutting machine, means for feeding a web of wrapping material comprising a pair of feed rolls, means for cutting wrappers from said web, photoelectric means for controlling said rolls to feed a predetermined length of material at each operation thereof, and means for driving said rolls comprising a drive shaft, a second shaft, means drivingly connecting said rolls with said second shaft, a set of pulleys on each of said shafts, the pulleys on one of said shafts being of different diameters, belts connecting the pulleys of one set with those of the other, said belts being loose relative to their respective pulleys, and means for selectively tightening said belts to bring the same into tractive relation with the pulleys whereby the rolls are selectively driven at different speeds.

5. In a wrapper feeding machine, means for feeding a web of wrapping material comprising feed rolls, photoelectric means for controlling said rolls to feed a predetermined length of material at each operation thereof, and means for driving said rolls comprising a drive shaft, a second shaft, means drivingly connecting said rolls with said second shaft, a set of pulleys on each of said shafts, the pulleys on one of said shafts being of different diameters, belts connecting the pulleys of one set with those of the other, one of said belts being normally tight and the other normally loose relative to their respective pulleys, and means for selectively tightening said loose belt and loosening said tight belt whereby the rolls are selectively driven at different speeds.

6. In a wrapper feeding machine, means for feeding a web of wrapping material comprising a pair of feed rolls, and means for driving said rolls comprising a drive shaft, a second shaft, means drivingly connecting said rolls with said second shaft, a set of pulleys on each of said shafts, the pulleys on one of said shafts being of different diameters, belts connecting the pulleys of one set with those of the other, said belts being loose relative to their respective pulleys, and means for selectively tightening said belts to bring the same into tractive relation with the pulleys whereby the rolls are selectively driven at different speeds.

7. In a machine of the type described, means for feeding a web of material comprising a pair of feed rolls, and means for driving said rolls comprising a drive shaft, a second shaft, means drivingly connecting said rolls with said second shaft, a set of pulleys on each of said shafts, the pulleys of each set being respectively aligned and the pulleys on one of said shafts being of different diameters, belts connecting the pulleys of one set with those of the other, said belts being loose relative to their respective pulleys, and means for selectively tightening said belts to bring the same into tractive relation with the pulleys whereby the rolls are selectively driven at different speeds.

8. In a machine of the type described, means for feeding a web of material at intermittently varying speed comprising a pair of feed rolls, photoelectric means for controlling said rolls to feed a predetermined length of material at each operation thereof, and means for driving said rolls comprising a drive shaft, means drivingly connecting said driven shaft with said feed rolls, a set of pulleys on each of said shafts, the pulleys of each set being respectively aligned and the pulleys on one of said shafts being of different diameters, belts connecting the pulleys of one set with those of the other, said belts being loose relative to their respective pulleys, speed changing means for selectively tightening said belts to bring the same into tractive relation with the pulleys whereby the rolls are selectively driven at different speeds, said speed changing means being normally inoperative, and means responsive to said photoelectric means to render said speed changing means operative in response to the position of periodic indicia on said web of material.

9. In a wrapping machine, wrapper feed means for feeding a wrapper to position for wrapping an article therein comprising a pair of feed rolls frictionally engaging a web of wrapping material to feed the same, means for driving said rolls comprising a source of power, a clutch between said source and said rolls, a clutch dog, a member controlled by an article to be wrapped and engageable with said clutch dog to disengage said clutch and disconnect said rolls from said source, means for transmitting power from said clutch to said rolls, said transmitting means being adapted to drive said rolls at increased or lessened speed and comprising a drive shaft controlled by said clutch and having a set of pulleys of different diameters thereon, a second shaft, means drivingly connecting said feed rolls with said second shaft, said second shaft having a set of pulleys of different diameters thereon in alignment with the pulleys on said drive shaft, belts connecting said drive shaft pulleys with said second shaft pulleys, said belts being loose on said pulleys whereby insufficient traction is afforded to transmit power from one set to the other, and electromagnetic means for selectively tightening said belts to render them operable to transmit power whereby to drive said second shaft and said rolls at different speeds, comprising belt tightening rollers associated with each of said belts, photoelectric viewing means for energizing said electromagnetic means and thereby selectively engaging the rollers with their respective belts to tighten the same, and cam means to thereafter reverse the tightening of said belts to their initial positions.

10. In a wrapper feeding and cutting machine, wrapper feed means for feeding a wrapper to wrapping position comprising a pair of feed rolls

frictionally engaging a web of wrapping material to feed the same, means for driving said rolls comprising a source of power, a clutch between said source and said rolls, means for transmitting power from said clutch to said rolls, said transmitting means being adapted to drive said rolls at increased or lessened speed and comprising a drive shaft controlled by said clutch and having a set of pulleys of different diameters thereon, a second shaft, means drivingly connecting said feed rolls with said second shaft, said second shaft having a set of pulleys thereon in alignment with the pulleys on said drive shaft, belts connecting said drive shaft pulleys with said second shaft pulleys, said belts being loose on said pulleys whereby insufficient traction is afforded to transmit power from one set to the other, and means for selectively rendering said belts operable to transmit power whereby to drive said second shaft and said rolls at different speeds comprising belt tightening rollers associated with each of said belts, and means for selectively engaging the rollers with their respective belts to tighten the same.

11. In a wrapper control mechanism, wrapper feed means for feeding a wrapper to a wrapping position comprising a pair of feed rolls frictionally engaging a web of wrapping material to feed the same, means for driving said rolls comprising a source of power, a clutch between said source and said rolls and including a clutch dog, means engageable therewith to disengage said clutch and disconnect said rolls from said source, a photoelectric viewing means normally periodically viewing spaced spots on said web, and means of operative connection between said clutch and said rolls, said last means being responsive to said photoelectric means and operable to effect a change in the speed of said rolls with respect to said clutch.

12. Mechanism for controlling intermittent supply of wrappers to a wrapping machine comprising feeding means for a web of wrapping material, cutting means for severing the web at spaced points to provide individual wrappers for use in the wrapping machine, a drive shaft for driving said cutting means directly and said feeding means indirectly, a driven shaft for driving said feeding means directly, said drive and driven shafts being provided with pulleys, normally loose belts on said pulleys, said pulleys being of different sizes to drive said driven shaft at two different speeds depending on which belt is tightened, idler rollers connected together for tightening one belt in one position thereof and the other belt in the other position thereof, cam means operable for each wrapper cut from the web of wrapping material to cause the higher speed belt to normally be effective, photoelectric viewing means adapted to view spaced indicia on said web of material, electroresponsive means energized thereby upon passage of one of said indicium relative to said photoelectric means, said electroresponsive means being associated with said idler rollers to shift them to their other position to thereby tighten the slow speed belt, said cam means effecting return of said idler rollers to high speed position at a predetermined point in the cycle of operation of said cutting means, thereby causing operation of said cutting means to sever a wrapper from said web at a predetermined point relative to one of said indicium thereon.

13. In mechanism for controlling periodic supply of wrappers to a wrapping machine, the combination of feeding means for a web of wrapping material, cutting means for severing the web at spaced points to provide individual wrappers, a drive shaft for driving said cutting means directly and said feeding means indirectly, a driven shaft for driving said feeding means directly, said drive and driven shafts being provided with pulleys, normally loose belts on said pulleys, said pulleys being of different sizes to drive said driven shaft at two different speeds alternately depending on which belt is tightened, a first means for tightening one belt, a second means for tightening the other belt, photoelectric viewing means adapted to view spaced indicia on said web of material, electroresponsive means energized thereby upon passage of one of said indicium relative to said photoelectric means, said electroresponsive means being associated with said first means to render it operable, said second means being driven by said drive shaft and operated thereby at a predetermined point in the cycle of operation of said cutting means, thereby causing operation of said cutting means to sever a wrapper from said web at a predetermined point relative to said indicium thereon.

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