Feb. 28, 1933. J. F. HALSTEAD 1,899,194

CIGAR HEADING DEVICE

Filed Oct. 24, 1931

FIG. 1

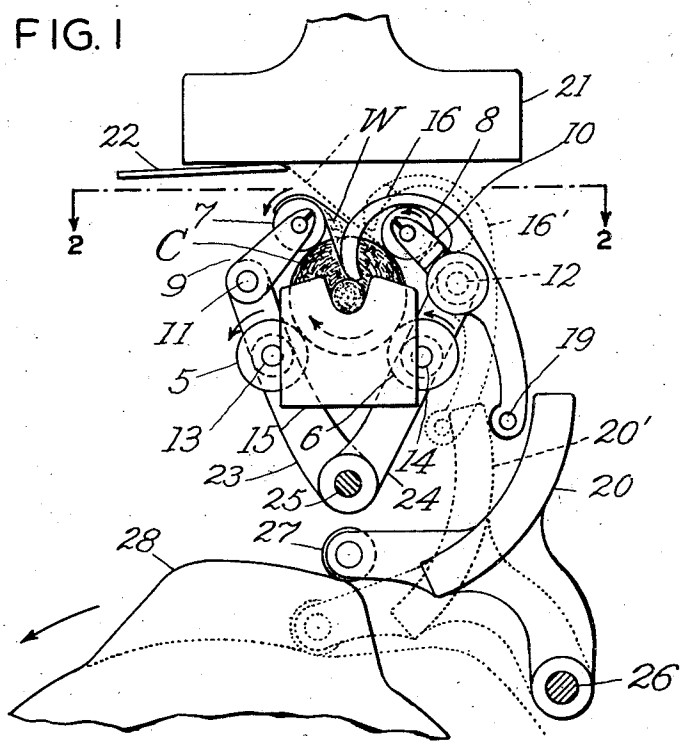
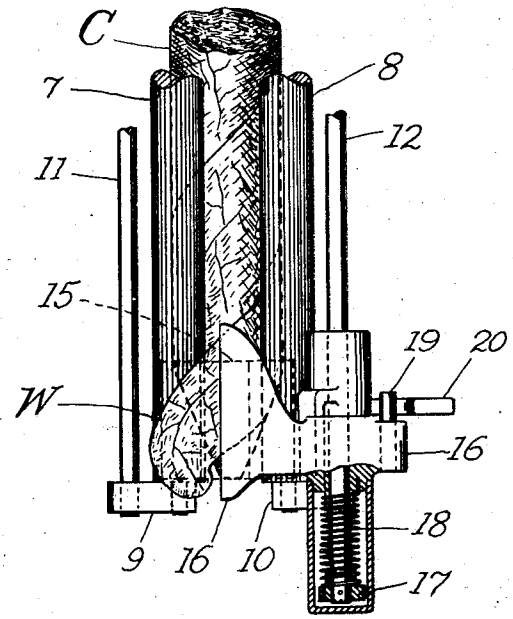


FIG. 2



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CIGAR HEADING DEVICE

Application filed October 24, 1931. Serial No. 570,923.

This invention relates to cigar heading devices, its object being to provide improved means for applying the wrapper to the head end of a bunch while insuring that the bunch and resulting cigar is held firmly in place in the header block of the wrapping device and that the head end or "flag" of the wrapper is held in tension while the head is being wrapped, thereby preventing wrinkles in the head of the cigar.

In cigar machine wrapper applying devices, the bunch is usually placed so as to extend between a gang of revolving rollers which hold the bunch in position and at the same time revolve the same for applying the wrapper to form a cigar. In order to accommodate the head ironer, which is shaped to fit the head end of the cigar for a little more than the length of the tapered head portion and which lays the flag of the wrapper around the cigar end, the top rollers may be shortened at the head end by a little more than the axial length of the head ironer, plus necessary room for bearings, to admit the ironer from the side but this deprives the cigar of support near the end of the cigar and permits the head end of the cigar to creep up in the header block by reason of the friction of the rotating bunch against the same, this being especially the case when the bunch is slightly oversize. It is thus an object of the invention to produce a device free from this source of trouble.

Another object is to make the direction of movement of the laying device, which is held out of engagement with the bunch except when needed to avoid unnecessary disturbance of the bunch surface, such that pressure exerted thereby will tend to hold the head in proper position against the head block. To this end the portion of the laying device which engages the head is so constructed that it has movement in a radial downward direction toward and away from the axis of the bunch and the face of the header block thus serving to hold the same down in the header block and opposing the tendency of the axis of a rotating bunch engaged by a relatively stationary surface to crawl along the surface.

In the present invention, the wrapper end laying device is so shaped as to lie against the cigar head directly above the same and between the top rollers without shortening the top rollers, thereby preventing the cigar from rising in the header block. Also the full length of the rollers affords a means for holding the wrapper flag in tension while being applied. After the end is released by the wrapper transfer, the head ironer, due to its improved shape, causes the end of the flag to rest on one of the lengthened top rollers, the movement of the adjacent surface of which being away from the cigar, produces a drag on the flag which holds the same flat and smooth as it is pulled under the laying device by the turning of the cigar.

With these and other objects not specifically mentioned in view, the invention consists in certain constructions and combinations which will be hereinafter fully described and then specifically set forth in the claims hereunto appended.

In the accompanying drawing, which forms a part of this specification and in which like characters of reference indicate the same or like parts, Fig. 1 is an end elevation of a device embodying the invention; Fig. 2 is a plan view of the device shown in Fig. 1.

In carrying the invention into effect, there is provided in a cigar wrapping mechanism, a gang of bunch rotating rolls for wrapping a cigar wrapper about the bunch thereby forming the cigar, together with means having a portion fitting the taper of the cigar head and overlaying and pressing the wrapper downwardly against the head to smoothly lay or iron the wrapper about said head. Preferably a stationary block is arranged to fit the under side of the head. In the best constructions mechanism is provided for moving said portion in a radial direction relative to the cigar axis into and out of operating position. In the best form, the gang of rollers includes a pair of rolls operating on the top of the bunch and extending substantially to the tip of the head, said portion extending between said pair of rolls toward the head. The various means referred to may be varied widely in construction within the

scope of the claims, for the particular device selected to illustrate the invention is but one of many possible concrete embodiments of the same. The invention therefore is not to be restricted to the precise details of the structure shown and described.

Referring to the drawing, C indicates the cigar bunch being wrapped, which at the end of the wrapping operation becomes a complete cigar, and which is held in place on the rotating bottom rollers 5 and 6 by the revolving top rollers 7 and 8, the latter being supported in brackets 9 and 10 mounted on shafts 11 and 12 respectively. The shafts 11 and 12 as well as the shafts 13 and 14 of rollers 5 and 6 are so actuated by means of levers 23 and 24 pivoted on a shaft 25 that they will move the two pairs of rollers apart laterally when a new cigar bunch is delivered to the wrapping device by a suitable transfer, and then close them around the bunch thus delivered after it has come to rest on a stationary head block 15, which is made to the desired shape of the head end of the cigar.

On the end of shaft 12 is pivoted the wrapper end laying device or head ironer 16 which is C shaped so as to curve with sufficient clearance over top roller 8 and downwardly between the two top rollers when its head engaging portion rests on the cigar bunch C. The head engaging portion of the laying device 16 is shaped to fit the taper of the head end of the bunch C and its axial width is such as to reach across the entire width of the head wrapping end or flag end of the wrapper W and to extend a small distance beyond the end of the bunch C. Between the hub of ironer 16 and a collar 17 at the end of shaft 12 is placed a torsion spring 18 which yieldingly urges the ironer into contact with the cigar bunch.

A downward extension of the ironer 16 carries a horizontally projecting pin 19 adapted to engage with a movable cam piece 20, the latter being in the dotted position 20′ shown in Fig. 1, thereby raising the ironer into position 16′ while the wrapper W is being pulled by the clockwise rotating cigar bunch C from between the wrapper carrier 21 and the tension plate 22. Shortly before the receding movement of the tension plate which releases the wrapper, the cam 20, which is pivoted on a shaft 26, by means of a roller 27 bearing on a revolving cam 28 moves into the full line position thus permitting the spring 18 to move the ironer down onto the cigar bunch and thereby pushing, when free the end of the flag onto the roller 7, the counter clockwise rotation of which causes its upper surface to produce a drag on the flag end of the wrapper to stretch the same smoothly away from the cigar while being wrapped.

The downward movement of the ironer is limited by the bracket 10 against which it rests in its down position when there is no cigar bunch in the wrapping device.

It will be noted that owing to the peculiar shape and mounting of the element 16 its mounting is below the rollers where it does not interfere with the wrapper carrier and yet it reaches the head of the cigar without requiring cutting away of the rollers and has movement, as is desirable, down in a radial direction onto the cigar.

What is claimed is:

1. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and overlying and pressing the wrapper downwardly against the head.

2. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and overlying and pressing the wrapper downwardly against the head, and a stationary block arranged to fit the under side of said head.

3. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and overlying and pressing the wrapper downwardly against the head, and mechanism for moving said portion in a radial direction relative to the cigar axis into and out of operating position.

4. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and overlying and pressing the wrapper downwardly against the head, said gang including a pair of rollers operating on the top of the bunch and said means including a pivoted member having its pivot lying below the rollers of said pair and extending from said pivot over one of said rollers and down between the pair of rollers into engagement with said head.

5. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and pressing the wrapper against the head, said gang including a pair of rollers acting on one side of the bunch and a device for delivering a wrapper between the rollers and across one of said rollers in a direction opposite to the movement of the adjacent surface of the roller whereby the portion of the roller adjacent the head exerts a drag on the end of the wrapper.

6. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and pressing the wrapper against the head, said rollers including a pair of rollers operating on one side of said bunch and extending substantially to the tip of said head, said portion extending between said pair of rollers toward the head.

7. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and overlying and pressing the wrapper downwardly against the head, and a head block arranged to fit the under side of the bunch head, said gang of rollers including rollers extending over said head block to aid in preventing the rotating bunch from crawling up on the head block.

8. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion fitting the taper of the cigar head and pressing the wrapper against the head, and devices mounting a plurality of said rollers and said means for movement in unison to admit a bunch within the rollers.

9. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion for engaging the cigar extending downwardly between two adjacent rollers and overlying and pressing the wrapper downwardly against the cigar.

10. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion for engaging the cigar extending downwardly between two adjacent rollers and overlying and pressing the wrapper downwardly against the cigar, said portion forming part of an element of C shaped cross section extending around one of said rollers.

11. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers, of means having a portion for engaging the cigar extending downwardly between two adjacent rollers and overlying and pressing the wrapper downwardly against the cigar, and devices mounting a plurality of said rollers and said means for movement in unison to admit a bunch within the rollers.

12. In a cigar wrapping mechanism, the combination with a gang of bunch rotating rollers for rolling a wrapper spirally about the bunch from the tuck end to the head thereof, of means having a portion fitting the head of the cigar extending downwardly between two adjacent rollers of said gang at a position above said head, mechanism for holding said portion out of operating position relative to the cigar during the major part of the wrapping operation, and devices for moving said portion into operative position after a part of the wrapper has passed between said portion and the bunch.

In testimony whereof, I have signed my name to this specification.

JOHN F. HALSTEAD.