

No. 646,285.

Patented Mar. 27, 1900.

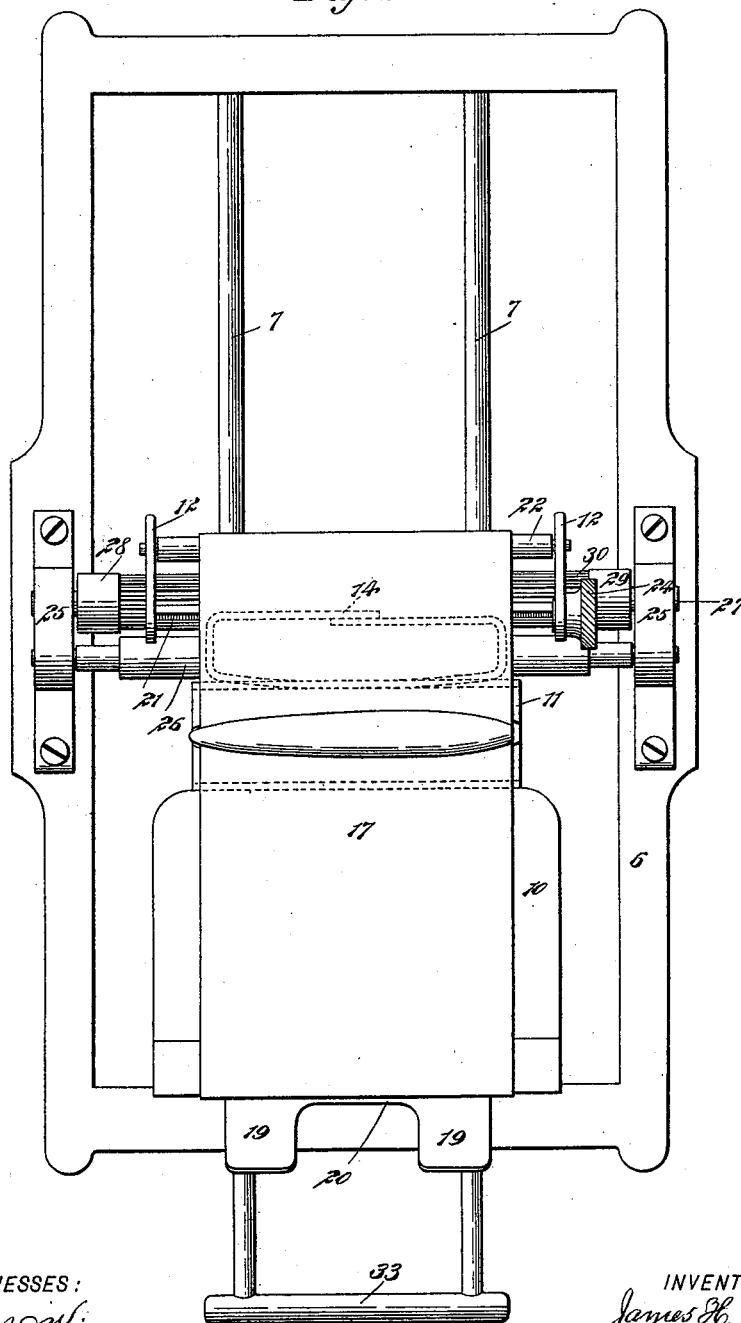
J. H. HOFFLER.  
CIGAR BUNCHING MACHINE.

(Application filed Apr. 5, 1899.)

(No Model.)

2 Sheets—Sheet 1.

*Fig. 1.*



WITNESSES:

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J. H. HOFFLER.  
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(Application filed Apr. 5, 1899.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 2.

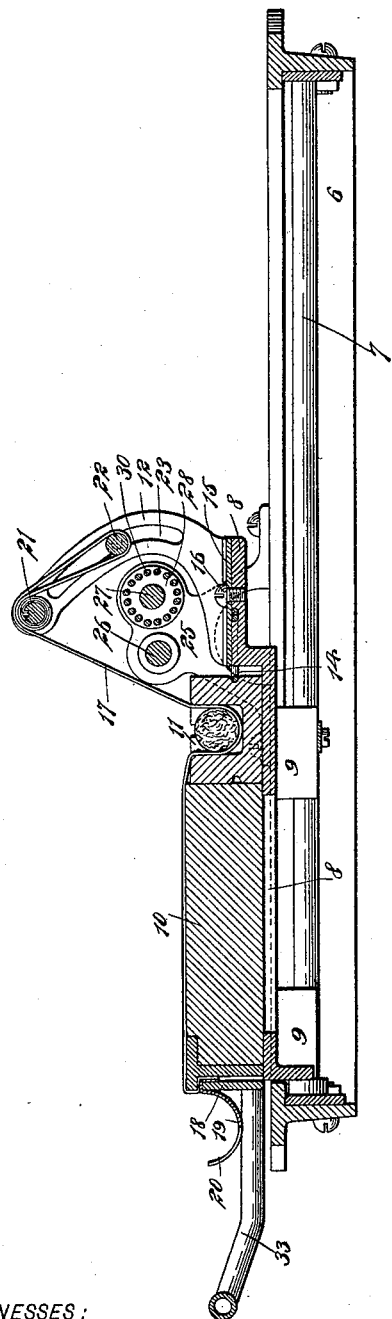


Fig. 4.

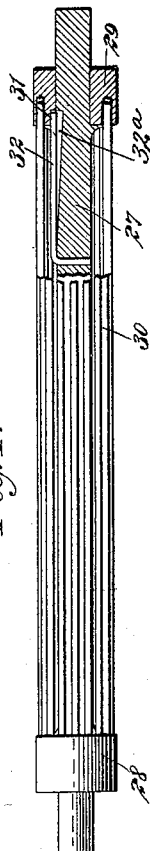


Fig. 3.

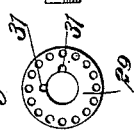
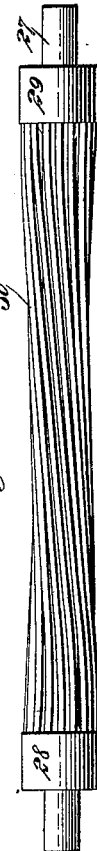


Fig. 5.



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# UNITED STATES PATENT OFFICE.

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## CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 646,285, dated March 27, 1900.

Application filed April 5, 1899. Serial No. 711,811. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. HOEFFLER, of Ashland, in the county of Ashland and State of Ohio, have invented a new and Improved Cigar-Bunching Machine, of which the following is a full, clear, and exact description.

This invention relates to a cigar-bunching machine of that class in which the bunch is manipulated by an apron or belt which is connected with a sliding table, so that as the table is moved the belt serves to roll or shape the bunch.

This specification is the disclosure of one form of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the invention. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is an end view of the shaping-roll. Fig. 4 is a side view thereof with parts broken away, and Fig. 5 is a side view of the roll in a different adjustment.

The machine has a base 6, with longitudinally-extending track-bars 7, on which the carriage 8 is mounted to slide by means of bearings 9, notched to receive the track-bars. The carriage carries a table 10, a bunch mold or cup 11, and upwardly and forwardly curved bearing-arms 12, which are raised considerably above the table. The mold 11 is removably seated in place, so that different forms of molds may be employed. The mold is held by a spring 14, mounted on the front extremity of the carriage 8 and secured by means of a clamping-plate 15, in turn held by a screw or screws 16.

The belt or apron 17 has its rear end fastened to the rear end of the table 10 by means of a clamping-plate 18, which also carries the bunch-receiver 19. This receiver 19 is formed with a centrally-situated orifice 20, permitting the passage of the fingers of a person into the holder to readily remove the bunch. The belt passes over the top of the table and over the mold and upward over a bar 21, and thence downwardly around a tension-roll 22, the trunnions of which are mounted both to turn and to move transversely in slots 23, formed in

the arms 12 and conforming to the curvature thereof. From the tension-roll 22 the belt passes upward and is made fast to the bar 21, which bar is revolubly mounted in the upper extremities of the arms 12 and held securely against movement during the operation of the machine by means of a thumb-nut 24. When the filler that composes the bunch is inserted into the cavity of the mold 11, the belt 17 is disposed as shown in Fig. 2.

Attached to each side of the frame and rising therefrom are bearings 25. Between these bearings the carriage 8 moves, the bearings being situated approximately midway the length of the frame. Mounted in the rear portions of the bearing is a loose roller 26, which is preferably constructed of rubber, and beneath which the carriage, with the mold and table, passes in the operation of the machine. The roller 26 causes the belt 17 to run true and prevents wrinkling thereof and also properly disposes the binder, as will be fully described hereinafter. For the purpose of properly disposing and rolling the bunch I provide a roller 27, the trunnions of which are mounted loosely in the front portions of the bearings 25. This roller carries at its left-hand end (see Figs. 4 and 5) a head 28, fast thereto, and at its right-hand end a head 29, revoluble thereon. Loosely fitted in openings in these heads 28 and 29 are a number of flexible steel rods 30, which run longitudinally of the roller 27. The head 29 is provided with two recesses 31, (see Figs. 3 and 4,) which communicate with the bore of the head 29 and which are capable each of receiving the spring-pawl 32, that is fast at its inner end to the roller 27 and which has its outer end free to enter either one of the recesses 31, whereby to hold the head 29 in either of two positions. The roller 27 has a longitudinal groove 32<sup>a</sup> therein directly adjacent to the free end of the pawl 32, permitting the pawl to be sprung inward out of engagement with the head 29, thus permitting the head to be turned on the roller. When the head 29 is held in one position by the pawl 32, the rods 30 are held in parallelism with each other and with the roller 27, as shown in Fig. 4, and when the head 29 is held in the other position the rods are held spirally, as shown in

Fig. 5. To effect this adjustment, the pawl should be pushed into the groove 32<sup>a</sup> in the roller and the head 29 turned as desired. Then the pawl should be permitted to spring back into the proper recess 31, thus to hold the head secure. Now when the rods 30 are in parallelism with the roller 27, as shown in Fig. 4, the rods being loose in the heads 28 and 29 will be free to give inward until they contact with the roller 27, which makes it possible to form a cigar with its sides convexed to the greatest degree desired; but when the rods 30 are disposed spirally, as shown in Fig. 5, their yielding inward movement will be greatly curtailed, and in consequence there is but little give to the roller, and a cigar with more nearly plane sides is formed. Either adjustment may be resorted to, according to the character of the bunch to be made. When the roll 27 is adjusted as in Fig. 4, the rods 30 are not strained, but are simply held loosely in the openings in the heads 28 and 29. When the roll is adjusted as shown in Fig. 5, however, the rods 30 are strained spirally—that is to say, the head 28 being stationary and the head 29 being turned a fraction of a revolution the rods 30 are twisted in a spiral direction with respect to the axis of the roller. It will be understood that under these conditions the rods are held with less resiliency than when unstrained, as in Fig. 4, and consequently the effect described above is produced. The heads 28 and 29 bear at their inner faces against shoulders formed on the roller 27, and the head 29 is prevented from displacement in outward direction by the bearing 25, against which the said head loosely bears.

In the operation of the machine the operative moves the parts to the position shown in Fig. 2 and pushes the belt 17 downwardly into the mold 11, placing the filler of the bunch when made on top of the belt, as shown. The binder should be laid on the belt 17 at the point over the table 10 and with its front end tucked into the mold between the bunch and the apron. The carriage 8 is then pushed forwardly, the operative grasping a handle 33 provided for this purpose. This causes the mold and table to pass under the rollers 26 and 27, so that the bunch is drawn from the mold and moved backward relatively to the table, thus causing the bunch to be rolled over the entire length of the table and finally

dropped into the receiver 19. Meanwhile the binder will have been wound around the bunch, and the cigar-bunch is thus formed. The torsion-roller 22 moves up and down through the slots 23 and causes the belt 17 to be always maintained in a taut condition.

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

1. A cigar-machine, having a bunch-disposing roller comprising a roll proper, heads mounted on the roll proper, one of which heads is loose, flexible rods extended between and carried by the heads, and means for locking the loose head in either one of two positions.

2. A roll for cigar-machines, the roll having longitudinally-extending flexible rods, and means for carrying the ends of the rods, such means being capable of holding the rods parallel with the roll or spirally with respect thereto.

3. A roll for cigar-machines, the roll having flexible rods extending longitudinally therewith, and means for holding the ends of the rods.

4. A roll for cigar-machines, comprising the combination of a roll proper, a head fast to one end of the roll proper, a second head loose on the other end portion of the roll proper, means for locking the loose head in either one of two positions, and flexible rods extending between and supported by the heads.

5. The combination of a base, a carriage mounted to slide thereon, a table held by the carriage, a mold mounted on the carriage alongside of the table, a spring held by the carriage and engaging the mold to push it against the table, bearings attached to the sides of the base, between which bearings the carriage passes, a bunch-forming roller mounted in the bearings and extending across the carriage to work on the table, arms attached to the carriage and extending upwardly above the bunch-forming roller, an apron attached to the carriage and supported by the arms, and a tension-roll movable longitudinally of the arms and having the apron passed around it, the tension-roll being carried by the arms.

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Witnesses:

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