

No. 829,019.

PATENTED AUG. 21, 1906.

H. KNIGHT.
CIGAR MACHINE.

APPLICATION FILED OCT. 17, 1903.

3 SHEETS—SHEET 1.

Fig. 1.

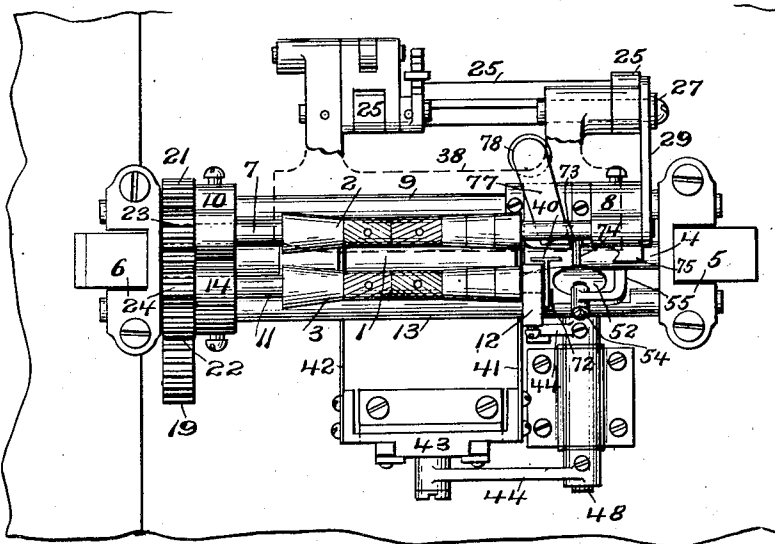
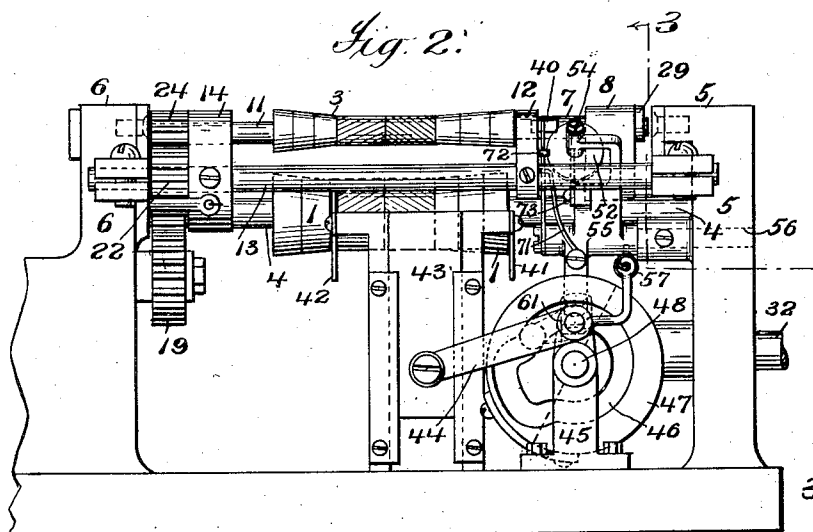


Fig. 2.



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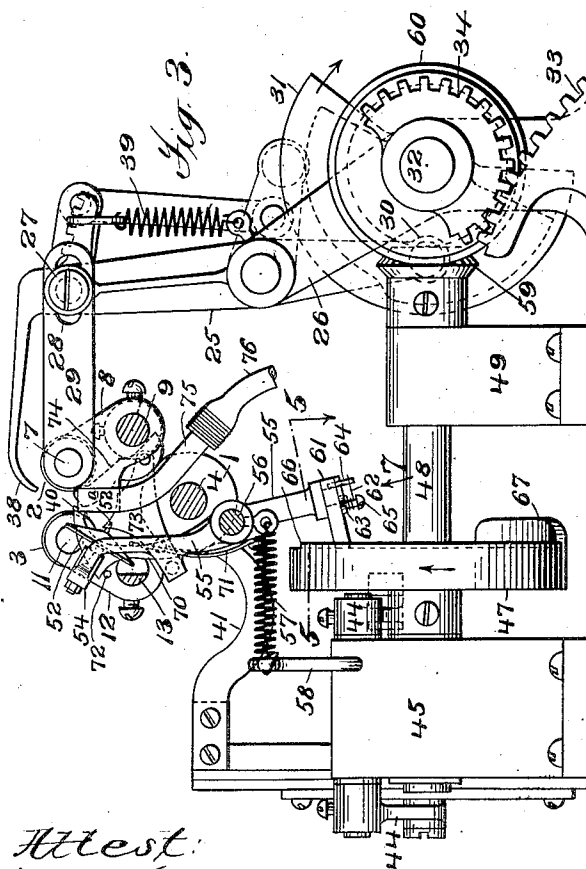
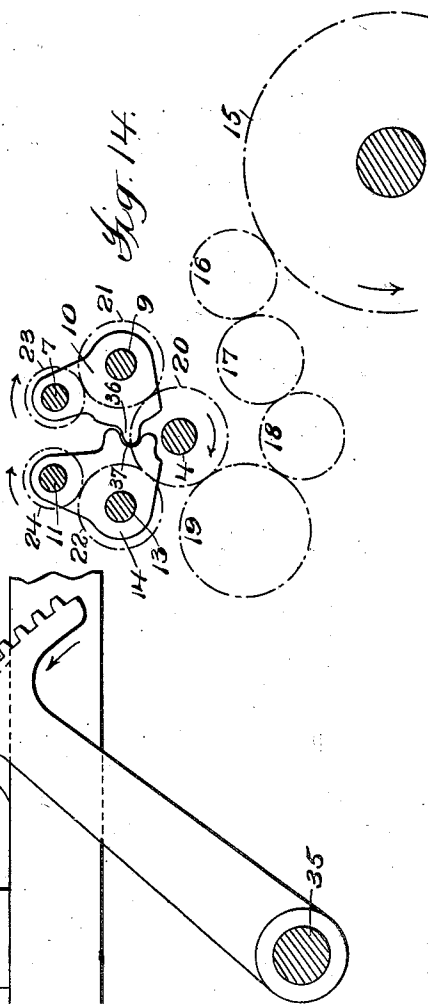
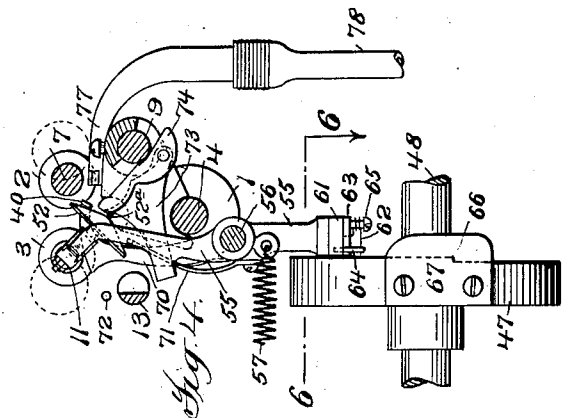
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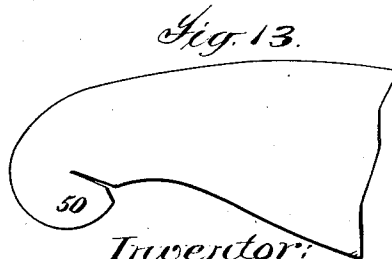
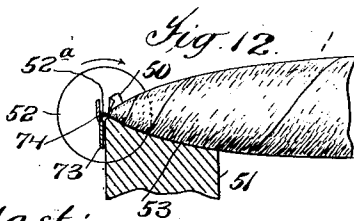
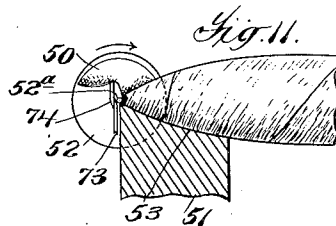
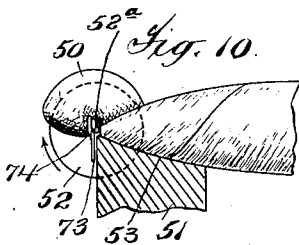
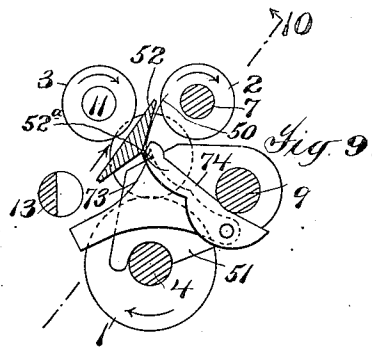
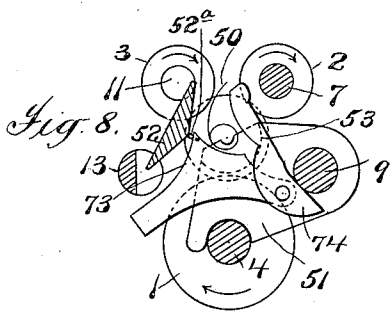
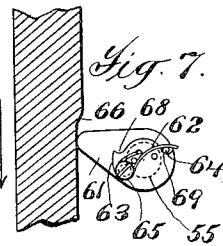
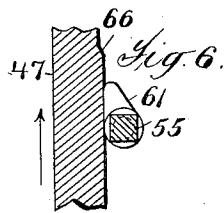
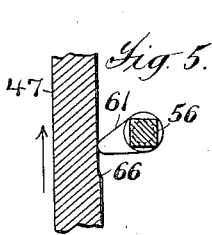
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CIGAR MACHINE.

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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

HARRY KNIGHT, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO INTERNATIONAL CIGAR MACHINERY COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CIGAR-MACHINE.

No. 829,019.

Specification of Letters Patent.

Patented Aug. 21, 1906.

Application filed October 17, 1903. Serial No. 177,380.

To all whom it may concern:

Be it known that I, HARRY KNIGHT, a citizen of the United States, residing at Jersey City, county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Cigar-Machines, fully described and represented in the following specification and the accompanying drawings; forming a part of the same.

10 This invention relates to improvements in cigar-machinery.

The present invention has reference particularly to mechanisms for operating upon the rear end of a wrapper with its projecting end portion or "flag" and winding it around the head of the cigar-bunch, mechanism for so winding such rear end and flag being usually termed "cigar-heading" mechanism. By "rear end" of the wrapper is meant that 20 part of the wrapper which is the last to be wrapped about the cigar-bunch and which is wrapped about the head thereof.

One of the objects of the present invention is to provide a cigar-heading mechanism 25 which will be simple in construction and which will wind the rear end of the wrapper and the flag thereof about the head of the cigar-bunch smoothly and evenly after the major portion of the wrapper has been wound 30 by suitable mechanism about the bunch.

Another object of the present invention is to provide means operating after the body or major portion of the wrapper has been wound or laid about the cigar-bunch to nick or partially sever the rear end of the wrapper, so as 35 to form the flag of the wrapper, the means provided for this purpose also assisting in properly guiding and supporting the flag while it is being wound on the bunch.

40 Another object of the present invention is to provide means whereby, as the body or major portion of the wrapper is being wound or laid about the cigar-bunch, the rear end of the wrapper will be held distended and out of 45 contact with the cigar-bunch and in position to be subsequently operated upon by suitable mechanism.

Another object of the present invention is to provide means whereby, as the movable 50 member of the heading mechanism is brought into and held in operative relation to the stationary member thereof, the flag of the wrapper will be held in a spread-out con-

dition, so as to insure a smooth and even laying or winding of the flag by a heading mechanism about the head of the cigar-bunch. 55

As a full understanding of the improvements of the present invention can best be had from a detailed description of an organization embodying the same, such description 60 will now be given in connection with the accompanying drawings, in which—

Figure 1 is a plan view of a cigar-wrapping mechanism provided with the several improvements constituting the present invention in their preferred form. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section, on an enlarged scale, taken on the irregular line 3 of Fig. 2. Fig. 4 is a similar view, and on the same scale, illustrating in a 70 different position some of the parts shown in Fig. 3. Figs. 5, 6, and 7 are sectional diagrammatic views illustrating the manner in which the movable member of the heading mechanism is moved into and out of operative relation to the stationary member thereof, Figs. 5 and 6, looking in the direction indicated by the arrows 5 6, respectively, Figs. 3 and 4, while Fig. 7, which is on a larger scale, looks in the reverse direction indicated 80 by the arrow 7 in Fig. 3. Figs. 8 and 9 are sectional views of the cigar-wrapping mechanism and the two members of the cigar-heading mechanism, showing the movable member of the latter in its two positions relatively 85 to the stationary member with which it coacts. Figs. 10, 11, and 12 are details, in section, illustrating the wrapper-nicking mechanism in cutting position and serving as a guide or support for the flag of the wrapper, 90 and illustrating also the two members of the cigar-heading device in operative relation to each other and in engagement with the head of a cigar, the flag of the wrapper being partially wound about the latter. Fig. 13 is a 95 detail of a portion of a cigar-wrapper and the flag portion thereof formed by the wrapper-nicking mechanism and which is to be wrapped about the head of the cigar by the cigar-heading mechanism, and Fig. 14 is a 100 diagrammatic view illustrating connections for driving the rollers of the cigar-wrapping mechanism.

The cigar-wrapping mechanism.— This mechanism, which rolls the cigar-bunch and 105 winds the major portion of the wrapper

about it, may be varied in construction, but, as shown, consists of three suitably-shaped rolls 1 2 3. The lowermost roll 1 is fixed to a shaft 4, journaled in standards 5 6. The shaft 7 of the roll 2 is journaled at one end in the upper end of an arm 8, the lower end of which is fixed to one end of a rock-shaft 9, journaled in the standards 5 6, the opposite end of said shaft 7 being journaled in an arm 10, fixed to the opposite end of rock-shaft 9. The shaft 11 of roll 3 is journaled at one end in the upper end of an arm 12, the lower end of which is fixed to a rock-shaft 13, journaled in the standards 5 6, the opposite end of said shaft 11 being journaled in an arm 14, fixed to the rock-shaft 13. The rolls 1 2 3 are rotated from a gear 15 in the direction indicated by the arrows in Fig. 14 by a train of gears 16 17 18 19, the latter of which meshes with a pinion 20, fixed to the shaft 4 of roll 1, said pinion 20 being in turn connected by intermediates 21 22, loosely mounted on rock-shafts 9 13, respectively, with pinions 23 24, respectively, fixed to the shafts 7 11 of the rolls 2 3, as best illustrated in Fig. 14.

During the operation of rolling a cigar-bunch and winding a wrapper about the same, the rolls 1 2 3 occupy the closed position illustrated by full lines in the drawings. When the operation of rolling and wrapping a cigar-bunch is completed, it is necessary that these rolls be opened so that the completed cigar confined between them may be removed and a new bunch introduced between the rolls. To provide for this opening of the rolls and for then closing them about the bunch so introduced, the rolls 2 3 are, as before pointed out, journaled in the arms 8 10 and 12 14, fixed at their lower ends to the rock-shafts 9 13, so that the rolls 2 3 are free to be moved to and from each other into closed and open position. This opening and closing movement of the rolls 2 3 is effected by a lever 25, fulcrumed in the upper end of a standard 26, rising from the base of the machine. The upper end of said lever is connected with the shaft 7 of roll 2 by a stud 27, passing through the upper end of said lever and entering a slot 28 in one end of a link 29, the opposite end of which is connected with the shaft 7. The lower end of said lever 25 is provided with a bowl 30, engaged by a cam-groove (not shown) formed in the face of a disk or segment 31, fixed to a shaft 32, journaled in standard 26 and driven by means of a segment or lever 33, engaging a segmental gear 34, fixed to the shaft 32, the lower end of said segment being fixed to a suitably-driven oscillating shaft 35. It will be understood that, as the segment 33, shaft 32, and cam-disk 31 are moved in the directions indicated by the arrows in Fig. 3, the upper end of the lever 25 will at the proper time be swung by the cam-groove (not shown) on disk 31 to the right of Fig. 3, and in moving in this direction will,

through the link 29 and shaft 7, move the roll 2 outwardly or away from the roll 3 into the position indicated by dotted lines in Fig. 4. As the segment 33, shaft 32, and cam-disk 31 are being thus moved a cigar-bunch is being rolled and wrapped by the rolls 1 2 3, and in order to avoid premature outward movement of the roll 2—that is to say, outward movement of said roll before the completion of the rolling and wrapping operation—the cam-groove (not shown) on disk 31, for operating the lever 25, is so timed that it will not engage the bowl 30 on lever 25, so as to move the roll 2 outwardly, until the rolling and wrapping operation is about completed, and in like manner, upon the movement of the segment 33, shaft 32, and disk 31 in the opposite direction, the cam groove or disk 31 will not move the lever 25 and roll 2 in the opposite direction or toward roll 3 until sufficient time has elapsed to permit the removal of the cigar which has been completed and the insertion of a new bunch therefor between the rolls 1 2 3.

As the roll 2 is moved outwardly and inwardly by the lever 25, in the manner just described, the roll 3 will be likewise moved outwardly and inwardly, as indicated by full lines and dotted lines in Fig. 4, this movement of the roll 3 being effected by the plates 10 14 in, which the rolls 2 3 are journaled and which are also fixed to the rock-shafts 9 13, respectively, as before described. For the purpose of so moving roll 3 the plate 10 is provided with a tooth 36, engaging a corresponding recess 37 in the plate 14, so that as the shaft 9 and said plate 10 are rocked by the lever 25 through link 27 and arm 8, the plate 10 will correspondingly rock the plate 14 and the shaft 13, and through said plate and the arm 12, fixed to said shaft 13, move the roll 3 (which is journaled in said plate and arm 14 12) outwardly or inwardly, according to the direction in which the roll 2 is moved, as illustrated by full and dotted lines in Fig. 4.

During the operation of rolling and wrapping a cigar-bunch it will be understood that the rolls 1 2 3 occupy the positions in which they are shown in full lines in the several figures of the drawings, and that the rotating and oscillating parts thus far described move in the directions indicated by the arrows in Figs. 3 and 14.

Upon the completion of a wrapping operation the rolls 2 3 will be thrown open or into the position in which they are illustrated by dotted lines in Fig. 4. While the rolls 2 3 are in this position a new cigar-bunch and a wrapper therefor will be deposited into position between the rolls 1 2 3. The bunch may be introduced between the rolls 1 2 3 by hand or by any suitable mechanism, and the wrapper may be fed to the bunch in the rolls in any suitable way. The particular machine selected to illustrate the invention is

designed to be used in connection with an automatic wrapper-feed; but such feed is not shown or described for the reason that a description or illustration thereof would not in any way assist in understanding the present invention. A wrapper-guiding plate 38, which assists in directing the wrapper to the bunch is, however, shown. This plate 38 has a movement with roll 2 from and to the position in which it is shown in Fig. 3 and has also a swinging movement vertically to and from the rolls 1 2 3, its upward-swinging movement being effected by a spring 39, by which it may be maintained in proper relation to a suitable wrapper-carrier. (Not shown.) The rear end of the wrapper as it is drawn over guide-plate 38 is engaged and supported by an additional guide-plate 40, hereinafter more fully described. The completed cigar may be withdrawn from between the rolls 1 2 3 when the latter are opened by hand or by means of suitable fingers, such as the vertically-moving fingers 41 42, of well-known construction, mounted upon a slide 43, operated by a lever 44, fulcrumed in a standard 45 and operated by a cam-groove 46 in a cam-disk 47, the shaft 48, to which the latter is fixed, being journaled in the standard 44 and in a standard 49.

The cigar rolling and wrapping devices thus far described of themselves form no part of the present invention, and for this reason, and also for the reason that they are in the main well known, further detailed description need not be given here of their construction or method of operation.

The heading mechanism.—While the details of construction of this mechanism may be varied in the particular machine selected to illustrate the invention, it consists of a stationary member 51, supported on the shaft 4 and rock-shaft 9, and a relatively movable member 52, which normally occupies the position in which it is shown in Figs. 3 and 8, but which is adapted to be moved from that position to the position illustrated in Figs. 4 and 9—that is to say, into operative relation to the stationary member 51 and into engagement with the flag 50 of the wrapper and the head of the partially-completed cigar resting upon said stationary member, as illustrated in Fig. 9. The stationary member 51, in the particular construction shown, is provided in its upper face with a longitudinally-inclined recess 53, in which the head end of the cigar-bunch rests, as shown in Fig. 10. As the operation of winding the body or major portion of the wrapper is about to be completed, however, the member 52 is, through connections which will presently be described, moved toward the stationary member 51—that is to say, into the position in which it is shown in Figs. 4 and 9—in which position it engages the head of the cigar and the flag of the wrapper,

and, coacting with the stationary member 51, completes the operation of winding the wrapper and the flag thereof around the head of the cigar or cigar-bunch, the cigar-bunch of course being turned by rolls 1 2 3. The member 52 of the particular heading mechanism shown consists of a disk loosely mounted so as to rotate in a bearing 54 in the upper end of an arm 55, pivotally mounted on a stud 56 in the standard 5. The center of the member 52 is in line with the point or contracted end of the recess 53 in the stationary member 51 and will therefore be in line with the head of the cigar in said recess, and as the face of said member 52 is inclined radially, as shown, it follows that as a cigar-bunch is turned by the rolls 1 2 3 the movable member or disk 52, when moved into engagement with it, will turn freely with it in its bearing 54. As the cigar-bunch is turned by rolls 1 2 3 the disk 52, engaging the rear end and flag of the wrapper, will wind it about the cigar-bunch, as shown in Figs. 10, 11, and 12. To assist the disk 52 in properly winding the rear end and flag of the wrapper about the bunch, the disk 52 may be provided with a guiding-pin 52^a, projecting from its center and adapted, when the disk 52 is moved toward member 51, to extend transversely across and in line with the point or contracted end of the recess in the latter, so as to engage the end of the cigar-bunch and also engage the edge of and guide the rear end and flag of the wrapper as they are wound upon the head of the cigar-bunch, as illustrated in Figs. 10 to 12.

Normally—i. e., while the major or body portion of a wrapper is being wound about a cigar-bunch by the rolls 1 2 3—the arm 55, by which the disk 52 is moved to and from the member 51, occupies the position (which may be called its “rearward” position) in which it is illustrated in Fig. 3 of the drawings. When the winding of the major or body portion of a wrapper is about completed, this arm 55 is moved from the position in which it is shown in Fig. 3 to that in which it is shown in Fig. 4 by a spring 57, connected at one end with an arm 58, secured on standard 45, and at its other end with the hub of arm 55. It will be observed that when the arm 55 is moved to this position (see Figs. 4 and 9) the movable member or disk 52 of the heading mechanism and its guiding-pin 52^a are in operative relation to the stationary member 51 and the cigar bunch and wrapper held by the rolls 1 2 3. The arm 55 is retained in the position in which it is shown in Fig. 3 by means of the cam-disk 47, the shaft 48 whereof is provided with a bevel-pinion 59, meshing with a bevel-gear 60, fixed to the shaft 32, which, as heretofore described, is oscillated by the rack-arm 33. At its lower end the arm 55 is provided with a laterally-projecting pivotally-mounted toe 61, the end of which is adapted

to bear against one face or side of the cam-disk 47, as illustrated in Figs. 3 to 7. This toe 61 is held normally in the position in which it is illustrated in Figs. 3, 5, and 7, with its point in engagement with the face or side of the cam-disk 47, by a spring 62, connected at one end with a disk 63, fixedly secured to the lower end of the arm 55 and at its other end to a stop 64, secured to the under side of the toe 61, the body of the spring 62 being coiled about a pin 65, secured to the under surface of the disk 63, as illustrated in Fig. 7. While the point of the toe 61 remains in engagement with the face of disk 47, the arm 55 and movable member or disk 52 of the heading mechanism will occupy the positions illustrated in Figs. 3, 5, and 7, with the movable member 52 and its pin 52^a out of operative relation to stationary member 51 of the heading mechanism. The disk 47, however, is provided with a shoulder 66, which, as the disk moves in the direction indicated by the arrow in Figs. 3, 5, and 7, will engage the toe 61 and move it to the position illustrated in Fig. 6, thus permitting the spring 57 to swing the arm 55 to the position shown in Fig. 4, and thereby move the disk or movable member 52 of the heading mechanism, with pin 52^a, into operative relation to the stationary member 51, as illustrated in Figs. 4 and 9 to 12. The arm 55 remains in this position until the cam-disk 47 has about completed its movement in the direction indicated by the arrow in Fig. 3, when said arm 55 is engaged by a cam-plate 67 upon the cam-disk 47, which returns the arm 55 from the position in which it is shown in Fig. 4 to that in which it is shown in Fig. 3. As the arm 55 is thus moved by the cam-plate 67 the spring 62 will move the toe 61 from the position in which it is illustrated in Fig. 6 to the position in which it is illustrated in Figs. 5 and 7, with its point again in engagement with the side or face of the cam-disk 47. The toe 61 and the arm 55 are maintained in this position during the return movement of the cam-disk 47 and until, during the next movement of the cam-disk 47 in the direction of the arrow in Fig. 3, the shoulder 66 is again brought into engagement with the toe 61 to again move it to the position illustrated in Fig. 6 and the arm 55 and disk or movable member 52 to the position illustrated in Figs. 4 and 9. The disk 63 is provided with shoulders 68 69, the former of which limits the movement of the toe 61 by the shoulder 66 and the latter of which limits the movement of said toe by the spring 62 in the opposite direction or by reason of the contact of the point of the toe with the side of the cam-disk 47 as the latter makes its return movement—that is to say, as it moves in the direction opposite to that indicated by the arrow in Fig. 3.

The wrapper-guide 40, heretofore referred

to in the description of the cigar-wrapping mechanism, is provided for the purpose of engaging the under side of the rear end of the wrapper and guiding and supporting it as it leaves the tension-plate 38 and is drawn downwardly by the rolls 1 2 3 and the cigar-bunch between them. Said guide is adapted to move with the movable member 52 to and from the stationary member 51 of the heading mechanism—in other words, to the two positions in which said guide 40 is shown in Figs. 3 and 4. To provide for this movement of the guide-plate 40, it is mounted in the upper end of an arm 70, pivoted on the stud 56, on which the arm 55 is pivoted, and the guide-plate 40 itself is (see Figs. 1 to 4) arranged in the path of movement of the disk or movable member 52, so that as the latter is moved toward the stationary member 51 of the heading mechanism it will engage and move the guide-plate 40 from the position shown in Fig. 3 to that shown in Fig. 4. The guide-plate 40 is returned to the position (its normal position) shown in Fig. 3 by a spring 71, connected at its lower end to arm 55 and at its upper end to arm 70, the movement of the guide-plate 40 in this direction being limited by a stop 72 on the arm 12, in which the shaft 11 of roll 3 is journaled.

The wrapper-nicking mechanism.—This mechanism consists of a pair of cutters 73 74, the former of which is rigidly secured to the arm 55 (see Figs. 3 and 4) and the latter of which is loosely mounted or fulcrumed upon the rock-shaft 9 and is pivotally connected to the cutter 73, so that as the arm 55 is moved inwardly by the spring 57 on the movement of the toe 61 to the position illustrated in Fig. 6 the cutting edge of the cutter 74 will be swung downwardly from the position in which it is shown in Fig. 3 to the position in which it is shown in Fig. 4 and in being so moved will coact with the cutting edge of the cutter 73 to nick or partially sever the rear end of the wrapper to form the flag 50, as illustrated in Fig. 11, the rear end of the wrapper being maintained in proper relation to the cutters 73 74 for this cutting operation by the wrapper-distending mechanism, which will presently be described. When the arm 55 is returned from the position in which it is shown in Fig. 4 to the position in which it is shown in Fig. 3, as heretofore described, the cutter 73 will move with the arm 55 and raise the cutter 74 from the position illustrated in Fig. 4 to the position illustrated in Fig. 3. This wrapper-nicking mechanism not only performs the function of nicking or partially severing the rear end of the wrapper to form the flag, as just described, but also upon thus nicking the rear end of the wrapper serves as a guide or support for the bunch and the body of the wrapper and sup-

porting and guiding it as it is drawn toward and wound about the head of the cigar-bunch. The portion of the wrapper-nicking mechanism which thus serves as a guide or support for the flag is the forward end of the cutter 74, which when moved from the position shown in Fig. 3 to its cutting position will assume the position, relatively to the flag, in which it is shown in Fig. 4, so as to support and guide it, as best illustrated in Figs. 10 to 12.

The wrapper-distending mechanism.—This mechanism, which is provided for the purpose of distending the rear end of the wrapper and keeping it distended during the heading operation, so that it will be properly presented to the head of the cigar-bunch and also be properly presented to the cutters 73 74, consists of a suction-pipe 75, which, acting upon the rear end of the wrapper, tends to draw it away from the rolls 2 3 and between the cutters 73 74, which, as best shown in Fig. 1, are arranged between the suction-pipe 75 and the end of the rolls 1 2 3. This air-suction pipe is supported on arm 8 and is provided with a flexible portion 76, connected with a suitable suction apparatus. (Not shown.)

The flag-spreading mechanism.—This mechanism, the function of which is to spread out the flag portion of the wrapper, so that it may be presented evenly and otherwise properly to the cigar-bunch, consists of an air-blast pipe 77, which, as will be observed on reference to Fig. 1, is arranged obliquely with reference to the rolls 1 2 3 and points toward the movable member or disk 52 of the heading mechanism, so that air issuing from said pipe under pressure will spread out the rear end and flag portion of the wrapper and hold it against the surface of said movable member or disk 52, and thereby insure even and smooth winding or laying of the flag of the wrapper around the head of the cigar. This air-blast pipe 77 is fixed to the stationary member 51 and is provided at its lower end with a flexible tube 78 for connection with a suitable air-forcing apparatus. (Not shown.)

What I claim is—

1. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a rotative member for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, and mechanism for automatically effecting such relative movement of said two members when the major portion of the wrapper has been wound about the bunch substantially as described.

2. The combination, with mechanism for rolling a cigar-bunch and winding the major

portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a loosely-mounted rotative member for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, and mechanism for automatically effecting such relative movement of said two members when the major portion of the wrapper has been wound about the bunch substantially as described.

3. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a rotative member having an inclined working face for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, and mechanism for automatically effecting such relative movement of said two members when the major portion of the wrapper has been wound about the bunch substantially as described.

4. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a loosely-mounted rotative member having an inclined working face for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation to each other, and mechanism for automatically bringing said two members into operative relation when the major portion of the wrapper has been wound about the bunch, substantially as described.

5. A cigar-heading mechanism, comprising a member for supporting the head of the bunch, a rotative member movable to and from said supporting member, for engaging the rear end of the wrapper and winding it about the head, and a flag-guiding device movable into and out of position to engage the head of the bunch and the flag of the wrapper, substantially as described.

6. A cigar-heading mechanism, comprising a member for supporting the head of the bunch, a rotative member movable to and from said supporting member, for engaging the rear end of the wrapper and winding it about the head, and a flag-guiding device movable into and out of position to engage the head of the bunch and the flag of the wrapper, substantially as described.

7. A cigar-heading mechanism, comprising a member for supporting the head of the bunch, a rotative member movable to and from said supporting member and having an

inclined working face, for engaging the rear end of the wrapper and winding it about the head, and a flag-guiding device movable into and out of position to engage the head of the bunch and the flag of the wrapper, substantially as described.

8. A cigar-heading mechanism, comprising a member for supporting the head of the bunch, a rotative member movable to and from said supporting member and having an inclined working face, for engaging the rear end of the wrapper and winding it about the head, and a flag-guiding device movable into and out of position to engage the head of the bunch and the flag of the wrapper, substantially as described.

9. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising suitable devices for supporting the head of the cigar-bunch and winding the rear end of the wrapper about it in combination with a wrapper-nicking mechanism operating upon the rear end of the wrapper to form the flag thereon, after the major portion of the wrapper has been wound about the bunch, mechanism for automatically operating said nicking mechanism and means movable into and out of position for engaging the flag and supporting it as it is drawn toward the bunch, substantially as described.

10. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising suitable devices for supporting the head of the cigar-bunch and winding the rear end of the wrapper about it, in combination with a wrapper-nicking mechanism operating upon the rear end of the wrapper to form the flag thereon, after the major portion of the wrapper has been wound about the bunch, mechanism for automatically operating said nicking mechanism and means movable therewith into and out of position for engaging the flag and supporting it as it is drawn toward the bunch, substantially as described.

11. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising suitable devices for supporting the head of the cigar-bunch and winding the rear end of the wrapper about it, in combination with a wrapper-nicking mechanism operating upon the rear end of the wrapper to form the flag thereon, after the major portion of the wrapper has been wound about the bunch, mechanism for automatically operating said nicking mechanism and provided with a part moving with it for engaging the flag and supporting it as it is drawn toward the bunch, substantially as described.

12. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a member for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, and mechanism for automatically bringing said two members into operative relation when the major portion of the wrapper has been wound about the bunch, in combination with a wrapper-nicking mechanism controlled in its operation by said heading mechanism and operating upon the rear end of the wrapper to form the flag thereon, after the major portion of the wrapper has been wound about the bunch, and mechanism for automatically operating said nicking mechanism substantially as described.

13. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a member for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, and mechanism for automatically bringing said two members into operative relation when the major portion of the wrapper has been wound about the bunch, in combination with a wrapper-nicking mechanism controlled in its operation by said heading mechanism and operating upon the rear end of the wrapper to form the flag thereon, after the major portion of the wrapper has been wound about the bunch, mechanism for automatically operating said nicking mechanism and means movable into and out of position for engaging the flag and supporting it as it is drawn toward the bunch, substantially as described.

14. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a member for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, and mechanism for automatically bringing said two members into operative relation when the major portion of the wrapper has been wound about the bunch, in combination with a wrapper-nicking mechanism controlled in its operation by said heading mechanism and operating upon the rear end of the wrapper to form the flag thereon, after the major portion of the wrapper has been wound about the bunch and mechanism for

automatically operating said nicking mechanism, said nicking mechanism being provided with a part moving with it for engaging the flag and supporting it as it is drawn toward the bunch, substantially as described.

15. The combination, with mechanism for rolling a cigar-bunch and winding the major portion of a wrapper about it, of a cigar-heading mechanism, comprising a member for supporting the head of the cigar-bunch and a member for engaging the rear end of the wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, and mechanism for automatically bringing said two members into operative relation when the major portion of the wrapper has been wound about the bunch, in combination with a pair of pivotally-connected wrapper-nicking devices operating upon the rear end of the wrapper to form the flag thereon, after the major portion of the wrapper has been wound about the bunch, said nicking devices being connected with and operated by said heading mechanism, substantially as described.

16. A cigar-heading mechanism, comprising a member for supporting the head of a cigar-bunch and a member for engaging the rear end of a wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, in combination with a pair of pivotally-connected wrapper-nicking devices operating upon the rear end of the wrapper to form the flag thereon, said nicking devices being connected with and operated by said heading mechanism, and provided with a part for engaging the flag and supporting it as it is drawn toward the bunch, substantially as described.

17. A cigar-heading mechanism, comprising a member for supporting the head of a cigar-bunch and a member for engaging the rear end of a wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, in combination with a pair of pivotally-connected wrapper-nicking devices operating upon the rear end of the wrapper to form the flag thereon, said nicking devices being connected with and operated by said heading mechanism, and one of said nicking devices being adapted to engage the flag and support it as it is drawn toward the bunch, substantially as described.

18. A cigar-heading mechanism, comprising suitable devices for supporting the head of a cigar-bunch and winding the rear end of a wrapper about it, in combination with a pneumatic device for delivering a blast of air against the upper face of and thus distending the rear end of the wrapper and positioning it for engagement by said heading mechanism, substantially as described.

19. A cigar-heading mechanism, comprising a member for supporting the head of a cigar-bunch and a member for engaging the rear end of a wrapper and winding it about the head of the bunch, in combination with a pneumatic device for delivering a blast of air against the upper face of and thus distending the rear end of the wrapper and positioning it for engagement by said two members, substantially as described.

20. A cigar-heading mechanism, comprising a member for supporting the head of a cigar-bunch and a member for engaging the rear end of a wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, in combination with a pneumatic device for delivering a blast of air against the upper face of and thus distending the rear end of the wrapper and positioning it for engagement by said two members, substantially as described.

21. A cigar-heading mechanism, comprising suitable devices for supporting the head of a cigar and winding the rear end of a wrapper about it, in combination with a wrapper-nicking mechanism operating upon the rear end of the wrapper to form the flag thereon and a pneumatic device for delivering a blast of air against the upper face of and thus distending the rear end of the wrapper and positioning it for engagement by said nicking mechanism, substantially as described.

22. A cigar-heading mechanism, comprising a member for supporting the head of a cigar-bunch and a member for engaging the rear end of a wrapper and winding it about the head of the bunch, in combination with a wrapper-nicking mechanism operating upon the rear end of the wrapper to form the flag thereon, and a pneumatic device for delivering a blast of air against the upper face of and thus distending the rear end of the wrapper and positioning it for engagement by said nicking mechanism and said two members, substantially as described.

23. A cigar-heading mechanism, comprising a member for supporting the head of a cigar-bunch and a member for engaging the rear end of a wrapper and winding it about the head of the bunch, said two members being relatively movable into and out of operative relation, in combination with a wrapper-nicking mechanism, operating upon the rear end of the wrapper to form the flag thereon, and a pneumatic device for delivering a blast of air against the upper face of and thus distending the rear end of the wrapper and positioning it for engagement by said nicking mechanism and said two members, substantially as described.

24. A cigar-heading mechanism, comprising a member for supporting the head of a cigar-bunch and a member for engaging the rear end of a wrapper and winding it about

the head of the bunch, in combination with a
pneumatic device for delivering a blast of air
against the upper face of and thus spreading
out the rear end of the wrapper and holding
5 it against the working face of the latter mem-
ber, substantially as described.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing
witnesses.

HARRY KNIGHT

Witnesses:

G. MAIFARTH,

A. G. WOODFORD.