(No Model.) 3 Sheets—Sheet 1.

J. S. WINGET.

CIGAR ROLLING MACHINE.

No. 481,453. Patented Aug. 23, 1892.

Fig. 1.

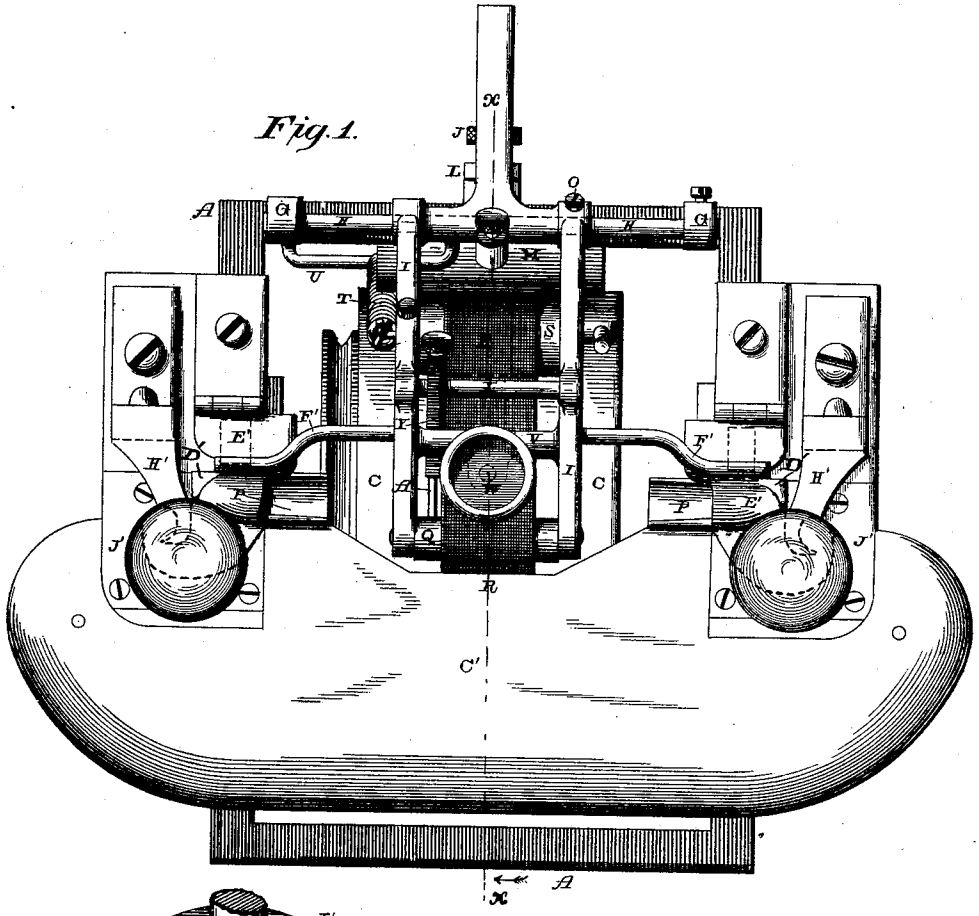


Fig. 3.

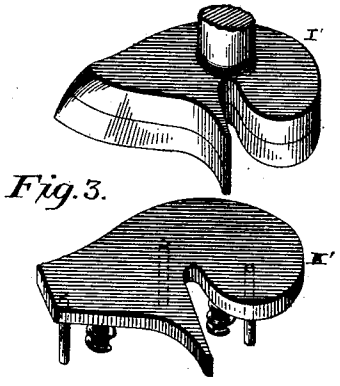
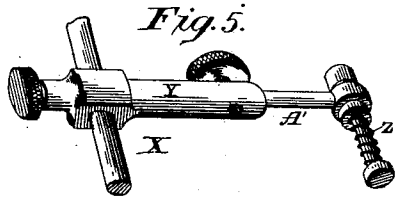


Fig. 5.



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(No Model.) 3 Sheets—Sheet 2.

J. S. WINGET.

CIGAR ROLLING MACHINE.

No. 481,453. Patented Aug. 23, 1892.

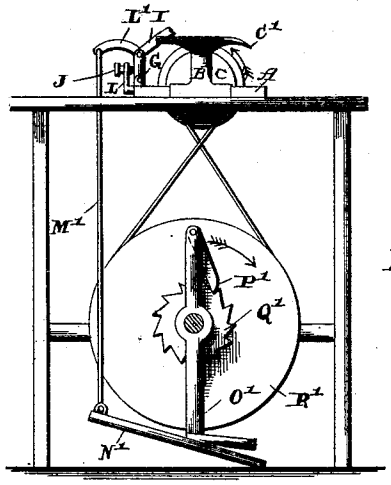

Fig. 6.

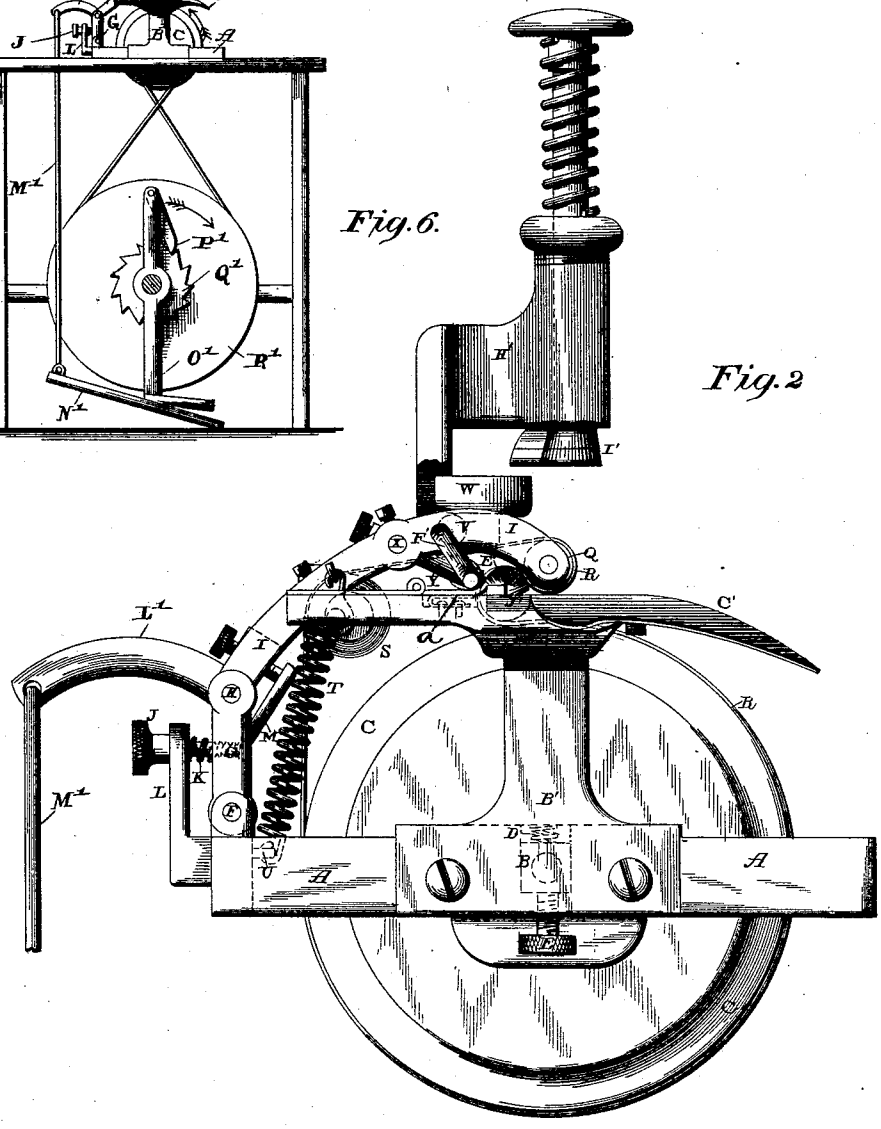

Fig. 2

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(No Model.) 3 Sheets—Sheet 3.

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CIGAR ROLLING MACHINE.

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FIG. 7.

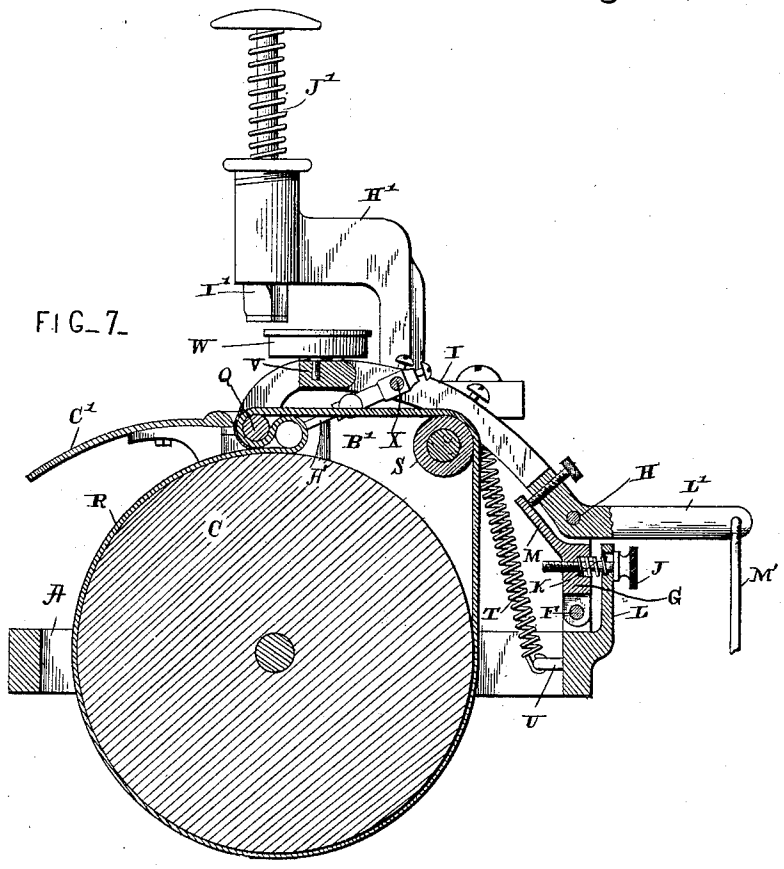


FIG. 8.

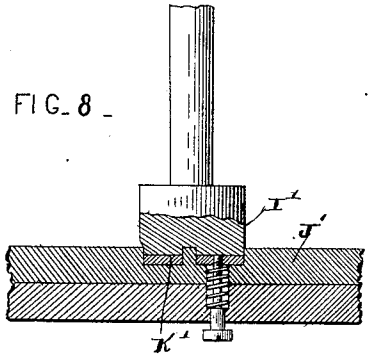
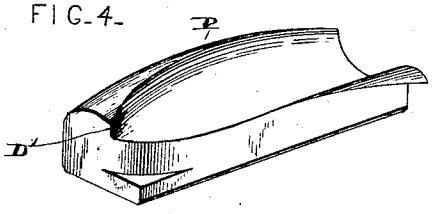


FIG. 4.



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UNITED STATES PATENT OFFICE.

JASPER STANLEY WINGET, OF COLUMBUS, OHIO, ASSIGNOR TO MYRON H. SCOVILLE, OF SAME PLACE.

CIGAR-ROLLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 481,453, dated August 23, 1892.

Application filed February 18, 1891. Serial No. 381,863. (No model.)

To all whom it may concern:

Be it known that I, JASPER STANLEY WINGET, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Cigar-Rolling Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in cigar-rolling machines; and it consists in the construction and arrangement of parts which will be fully described hereinafter, and particularly referred to in the claims.

The objects of my invention are to provide a cigar-rolling machine in which the bunch is made to rapidly revolve while the wrapper is being applied thereto at the same time that the end of the bunch is being given the desired shape, and to provide, in connection with the thimble in which the end of the bunch is being shaped, a die which gives the end of the wrapper the exact shape necessary, thus enabling inexperienced persons to perfectly finish fine cigars, and consequently decrease their cost.

Figure 1 is a plan view of a machine which embodies my invention. Fig. 2 is a side elevation of the same, the treadle mechanism being omitted. Fig. 3 is a detail view of one of the dies and its corresponding vertically-moving spring-actuated plate. Figs. 4, 5, and 6 are detail views. Fig. 7 is a vertical section of Fig. 1, taken on the dotted line $x\,x$. Fig. 8 is a detail view showing a vertical section through the plates J′ and K′ and showing the cutter I′ depressed.

A represents a suitable rectangular frame, which is provided with recesses in opposite sides, and in these recesses are placed the boxes B, in which the revoluble drum C is journaled. Applied to the top of each of the boxes is a spring D, and passing up through the frame from its under side are the set-screws E, by means of which the boxes are raised or lowered, so as to raise or lower the revoluble drum C, according to the size of the bunch that is being made. The object in raising and lowering this drum C is to bring its upper edge upon a level with the bottom of the thimble in which the head of the bunch is being shaped.

Pivoted upon a rod or shaft F, which is placed in suitable ears formed upon the top of the rear part of the frame A, is a supporting-frame G, and pivoted upon a rod H, which extends through the top of this supporting-frame G, is the roller-frame I, which is operated by a treadle of its own. The supporting-frame G turns upon the rod F and is held in any desired position by means of the set-screw J and the spring K, placed between the projection L, through which the screw passes, and the frame G. By turning this screw J the supporting-frame G is moved back and forth for the purpose of raising and lowering the roller-frame I in proportion as the drum C is raised and lowered, and thus adapting the roller-frame to the size of the bunch that is being rolled. Projecting forward at any suitable angle to the top of the supporting-frame G is the plate M, and passing through the supporting-frame G and bearing against this plate M is a set-screw, which regulates the distance that the roller-frame shall drop forward at its front end. In order to fasten the roller-frame I in position upon its pivotal rod, it is provided with a set-screw O, which bites against the rod, as shown. The roller-frame I is made laterally adjustable upon its pivotal rod for the purpose of being used in connection with either a right or a left hand thimble, as may be desired. When the wrappers which are to be placed upon the bunches are intended for left-hand cigars, this roller-frame I is moved toward the left-hand thimble P, and when it is used in making right-hand cigars it is moved toward the thimble P on the right.

Journaled in the front end of the roller-frame I is the bunching-roller Q, over which the endless apron R passes, and which roller Q will either be made straight or curved, according to the shape of the bunch that is to be rolled. Also journaled in this frame I is a second guiding and tension roller S, and which roller is journaled upon an eccentric, so that it can be used as an apron-tightener, and thus take up any slack of the belt that may be

necessary. In making large bunches a greater amount of belt is necessary, and hence in order to take up this extra amount when a smaller bunch is to be made a belt-tightener is necessary. This belt passes around the drum C and up over the rollers Q S, and the pocket in the apron is formed under the back of the bunching-roller Q, as shown, where the rolling of the bunch takes place. The doubling of the belt to form the pocket causes the bunch to roll in the opposite direction from that in which the drum is made to turn by its treadle. In order to hold the bunching-roller Q with sufficient force upon the bunch to cause it to roll freely, a spring T is used, and which spring is fastened at one end to a rod U, fastened to the inner side of the rear portion of the frame, and which spring slides freely back upon the rod U as the roller-frame I is adjusted from one side to the other.

Extending across the frame I, between the two rollers Q S, is a support V, upon which the paste-cup W is placed. Back of the support V is a guide-rod X, and upon this guide-rod is placed the sliding support Y, which is held in any desired position upon the rod by means of a set-screw. In the lower forward end of this support Y is a spring-actuated rod Z, which bears against the tuck end of the bunch and forces its head into the thimble P for the purpose of being shaped. The rod A′, through which the spring-actuated rod Z passes, plays in and out of the hollow end of the support Y, so that it can be adjusted to the length and size of the bunch that is being made and so that the rod Z can be reversed and used in connection with either right or left cigars. After the rod Y has been adjusted into the desired position the rod A′ is fastened rigidly in place in the end of the support by means of a set-screw.

Rising from each side of the frame A is a standard B′, to the upper front edge of which is secured the metallic plate or apron C′ of any desired shape, and which serves to support the wrapper while it is being rapidly revolved around the bunch. In the inner side of the top of each of these standards B′ is made a pocket into which thimbles P of different sizes and shapes are adapted to be placed. When one shape or size of cigar is being made, one form of thimble is used, and when a cigar of a different shape is to be made a correspondingly-shaped thimble is required. Just to the point of the thimble its edge rises any desired distance, so as to form a shoulder D′ to prevent the wrapper passing this point. When the wrapper strikes this shoulder D′, it gathers or doubles, because it cannot pass back of it, and hence is in position to be cut away, and thus prevent an unfinished point from being left behind. The top of each thimble P is hinged or otherwise loosely connected to the top of the standard B′, and under or connected to each cover E′ is a spring *a* or any other form of device which will cause the cover to rise at the same time that the roller-frame I is raised. When the roller-frame descends upon a bunch, the cover E′ of each thimble is forced down, so as to assist in shaping the head of the bunch. It is immaterial what means are used to raise these covers E′ and return them in position, though in this instance I show a spring, which is placed under the covers, and show a rod F′, projecting from each side of the roller-frame and which strikes against the top of the covers, so as to hold them down in place. These rods F′ may be made long enough to always project over both of the covers E′, so as to make the operation entirely certain; but, if so preferred, the rods may be made short enough to only catch over the covers E′ when the frame I is forced toward that side. The cover of each thimble is made removable in any suitable manner, so that whenever the thimble is removed the cover is removed at the same time. The thimble P really only forms a half of a thimble and the cover E′ forms the other half.

Secured upon the top of each standard B′ is a guide H′, through which the spring-actuated stem of the die I′ plays. Each die I′ is of the exact shape that the outer end of the wrapper is to be cut and one die cuts the wrappers for right and the other for left hand cigars. Two dies are mounted upon the machine, as here shown, so that either right or left hand cigars can be made at will, and each die is so shaped as to cut against or close to the shoulder D′, and thus leave no unfinished end of the wrapper to project out of the head of the bunch. Dies of different shapes will be used and will be made removable from vertically-moving stems, so that they may be adjusted to cigars of different shapes.

Secured to the top of each of the standards is a bed-plate J′, and made in each bed-plate is a recess of the exact shape of the die. When the dies are changed, the bed-plates J′ may also be changed, so as to have the recesses in the bed-plates to correspond to the dies. In each recess is placed a plate K′ of the exact shape of the recess, and each plate is provided with suitable guides or stems which pass down through openings made to receive them in the top of the standard B′. Placed under each plate, which has its edge slightly beveled, so as to be made self-sharpening, are a suitable number of springs, which instantly return the plate to position after having been depressed by the downward movement of the die. The bed-plate J′ becomes covered with paste and gum from the tobacco, and hence it becomes necessary to keep the edges of the dies always clean, so as to freely cut the wrappers. For this purpose the vertically-moving plates K′ are used, and which give before the dies sufficiently far to have the edges of the dies descend into the recesses in which the plates K′ are placed. By having the lower cutting edge of each die enter the recess its edges are cleared of gum and paste and the edge of the recess and the edges of the dies are always clean, ready for work. The frame

I has a rearwardly-extending arm L′, to the outer end of which is connected a rod M′, the opposite end of this rod being connected to a treadle N′, by means of which the frame I is raised. Journaled in a framework under the machine is a wheel R′, carrying a ratchet-wheel Q′, with which a pawl P′, upon a foot-lever O′, engages. A band passes around the wheel R′ and a pulley upon the wheel C, by means of which the wheel C is revolved, as will be understood. After the frame I has been adjusted into position to roll either right or left hand wrappers a bunch is placed in the pocket and the head of the bunch is forced into the thimble by means of a spring-actuated rod Z. By causing the drum C to revolve by means of its treadle or any suitable mechanism the bunch is caused to rapidly revolve while the pasted wrapper is applied thereto. After the wrapper has been partially wrapped upon the bunch its outer end is shaped by the die, and then after this part of the wrapper has been pasted the wrapping is completed. The bunch may then be revolved in the thimble, so as to smooth its head to any desired extent. This construction enables persons of little or no experience to make a perfect cigar with its point exactly in the center and more rapidly than an experienced operator can roll by hand.

It will be noticed that only a single large drum is used for operating the belt and revolving the bunch instead of a number of rollers, which have heretofore been regarded as necessary, thus producing a very cheap and simple machine and one which is not liable to get out of order while in operation. While a treadle is here shown for operating the drum, it is evident that it may be operated by power, if so desired.

Having thus described my invention, I claim—

1. In a cigar-bunch-rolling machine, a rotating drum, a laterally-adjustable frame having a bunching-roller in its free end, an endless apron which passes around the drum and the said roller, and a shaping-thimble at one end of the drum, all combined substantially as specified.

2. In a cigar-bunch-rolling machine, a rotating drum, a pivoted frame provided with a bunching-roller, an endless apron which passes around the drum and the said roller, and a supporting-frame carrying the said pivoted frame, which engages the said supporting-frame for adjusting the distance that the pivoted frame shall move forward, all combined substantially as described.

3. In a cigar-bunch-rolling machine, a main frame, a large rotating drum journaled therein, a pivoted supporting-frame mounted upon the main frame, and a regulating device which engages the main frame and the said pivoted supporting-frame and regulates the distance that the latter shall move forward, combined with the pivoted spring-actuated roller-frame which extends over the drum, a bunching-roller in the free ends of the roller-frame, which latter is supported by the said pivoted supporting-frame, and an endless apron which passes around the bunching-roller and the drum, substantially as shown and described.

4. In a cigar-bunch-rolling machine, a main frame provided with a lug or projection, a rotating drum, a pivoted supporting-frame mounted upon the rear side of the main frame and provided with a plate M, and a regulating device which passes through the said lug or projection upon the frame and engages the said pivoted supporting-frame for regulating the movement thereof, combined with a pivoted and spring-actuated roller-frame mounted upon the said pivoted supporting-frame, a regulating device located upon the roller-frame and engaging the plate M, a bunching-roller mounted in the free end of the roller-frame over the drum, and an endless apron which passes around the drum and roller, and a tension device, substantially as described.

5. In a cigar-bunch-rolling machine comprising a rotating drum, a laterally-adjustable frame carrying a bunching-roller, and a shaping-thimble at each side of the said drum a greater distance apart than the width of the said frame, whereby either right or left hand cigars can be made by moving the frame laterally, substantially as set forth.

6. In a cigar-bunch-rolling machine, a rotating drum, a frame carrying a bunching-roller, an apron which passes around the said drum and bunching-roller, and a horizontal spring-actuated rod adjustably connected with the said frame, one end of the said rod adapted to bear against the end of the cigar, and a thimble, the parts being combined and arranged to operate substantially as described.

7. In a cigar-bunch-rolling machine, a frame, a bunch-rolling mechanism, a thimble for shaping the end of the cigar, having a shoulder at its tapered end, combined with a vertically-moving die placed to one side of the tapered end of the said thimble, an opening in the frame below the die, and a spring-actuated plate in the said opening, the shape of the opening die and plate being the same, substantially as specified.

8. In a cigar-bunch-rolling machine comprising a rolling mechanism, a thimble at each side of the said mechanism for shaping the ends of cigars, and a right and left hand die, one at each side of the mechanism and placed adjacent to the tapered end of the said thimbles, whereby the machine is adapted to be used for forming right and left hand cigars, substantially as set forth.

9. In a cigar-bunch-rolling machine, a rotating drum, a spring-actuated pivoted frame having a bunching-roller over the said drum, an endless apron passing around the said drum and roller, a stationary thimble having a hinged cover, and an arm or projection upon

the said pivoted frame, which engages the hinged cover of the said thimble, substantially as described.

10. In a cigar-bunch-rolling machine, a rolling mechanism, a pivoted frame forming a part thereof, a stationary thimble, a hinged cover therefor, a spring for normally holding the cover open, and an extension upon the said pivoted frame, which engages the cover and forces it down when the frame is lowered, the parts combined substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

J. STANLEY WINGET.

Witnesses:
E. P. ELLIS,
F. A. LEHMANN.