

(No Model.)

2 Sheets—Sheet 1.

E. K. MARTIN.
PROCESS OF MAKING CIGARS.

No. 451,178.

Patented Apr. 28, 1891.

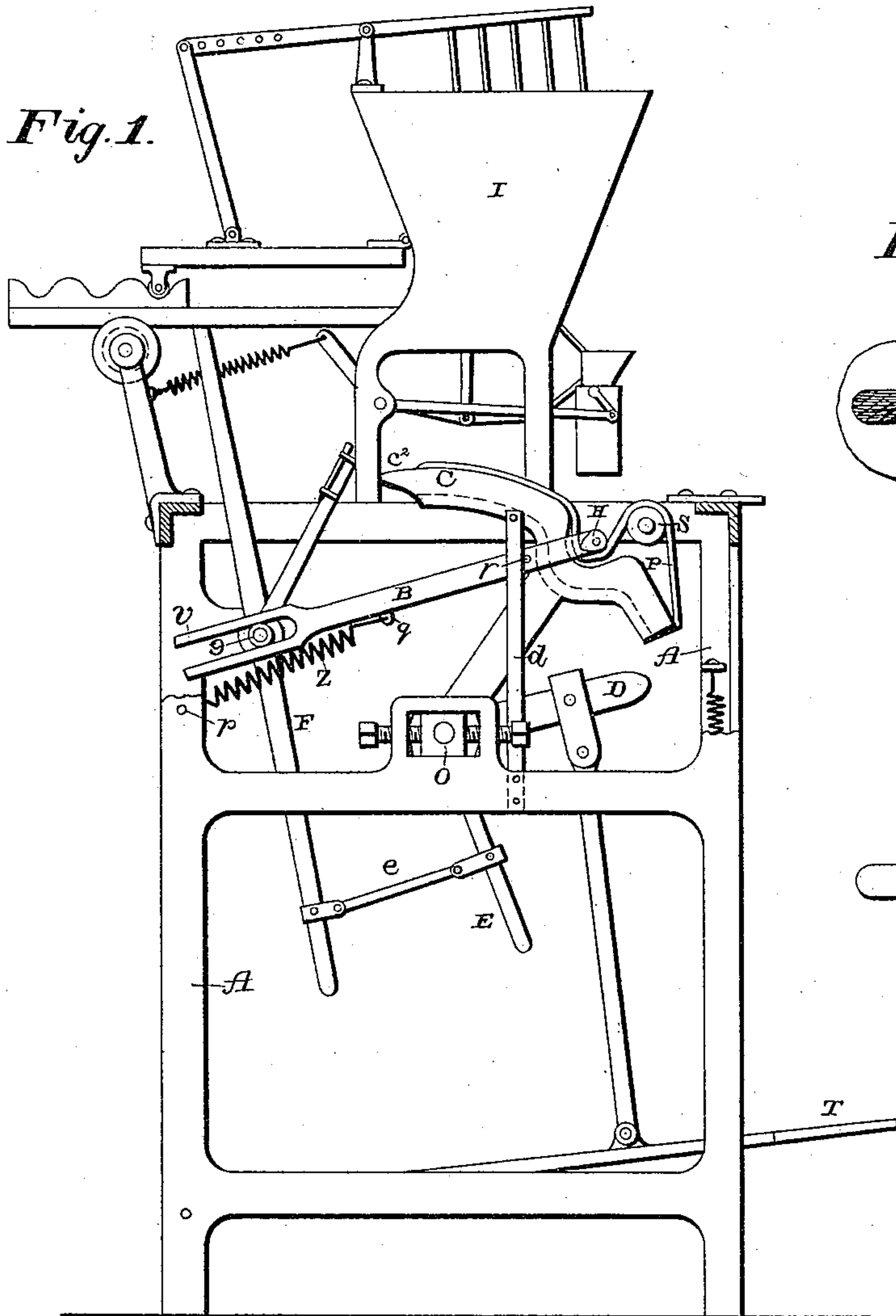


Fig. 3.

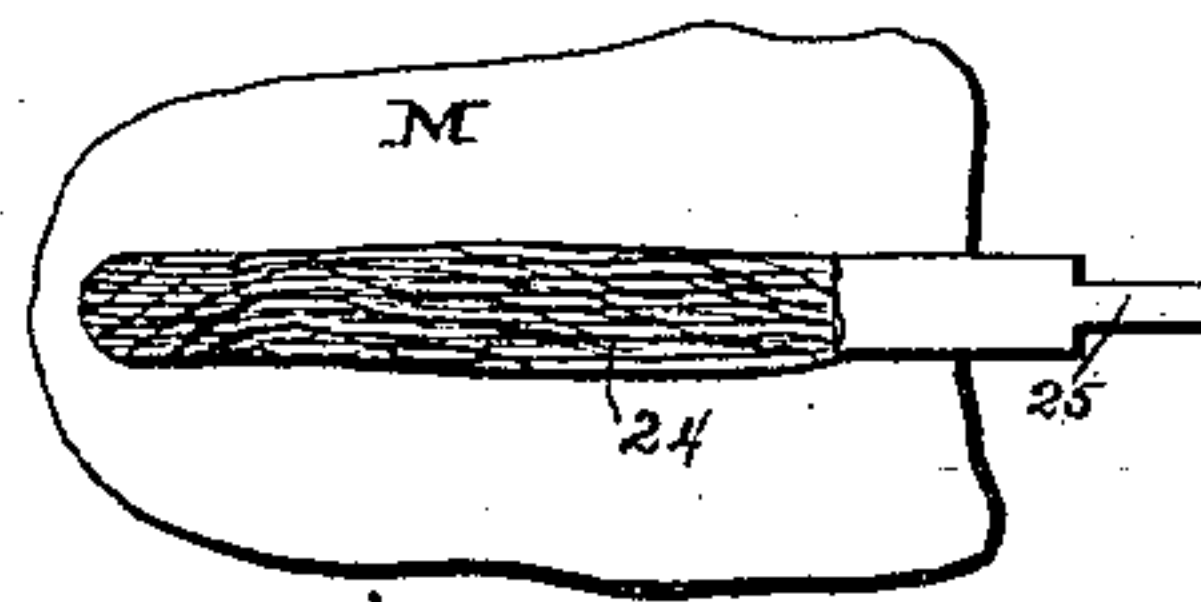


Fig. 4.

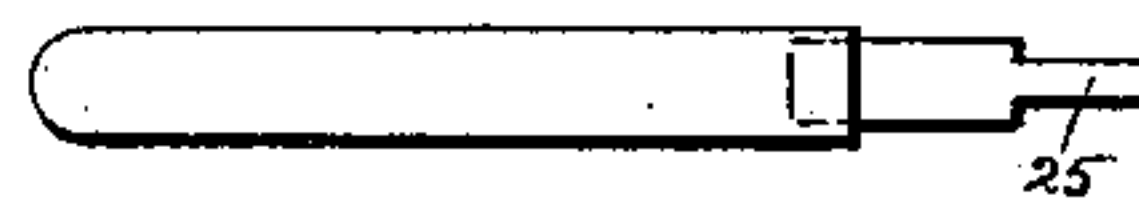
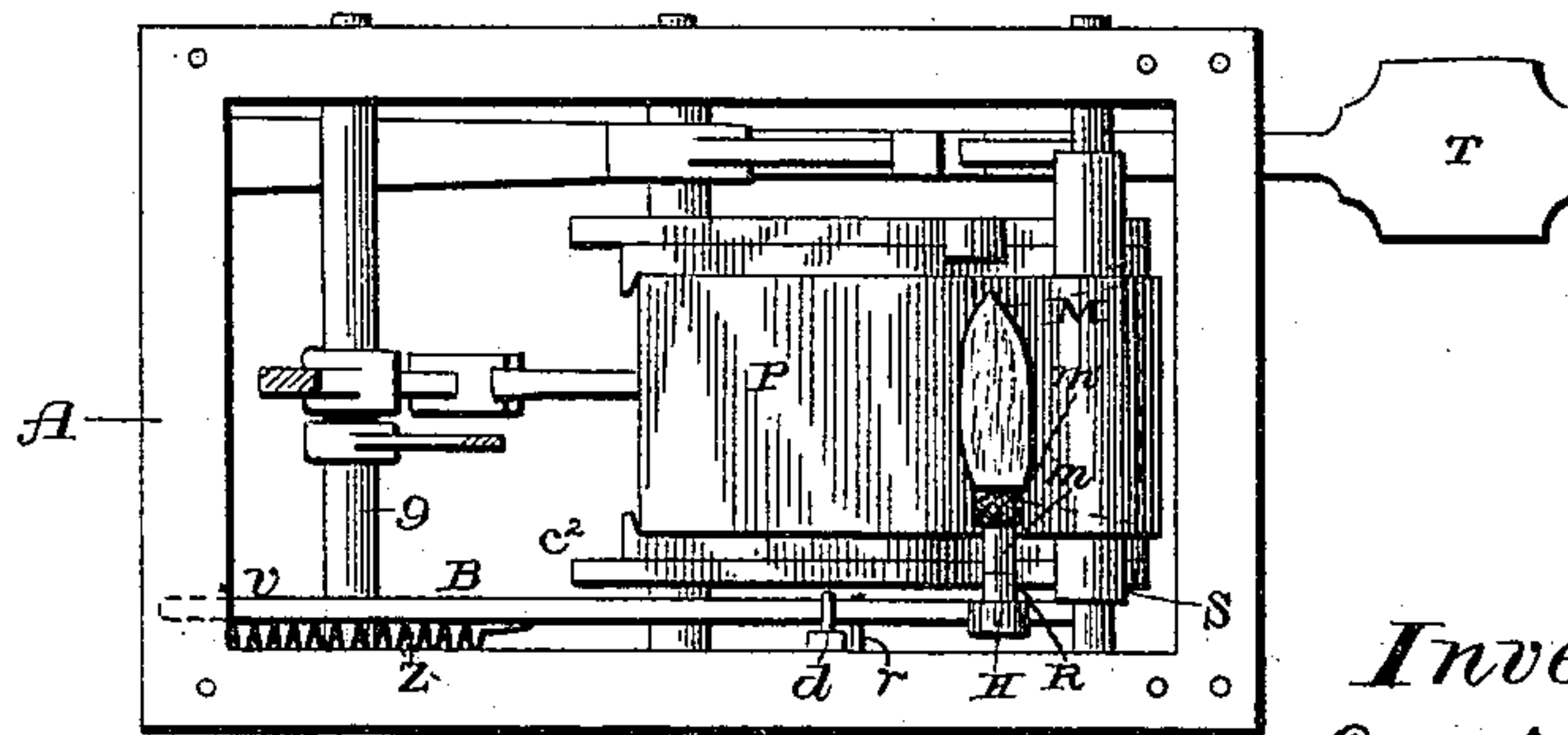


Fig. 2.



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Inventor:
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Atty.

(No Model.)

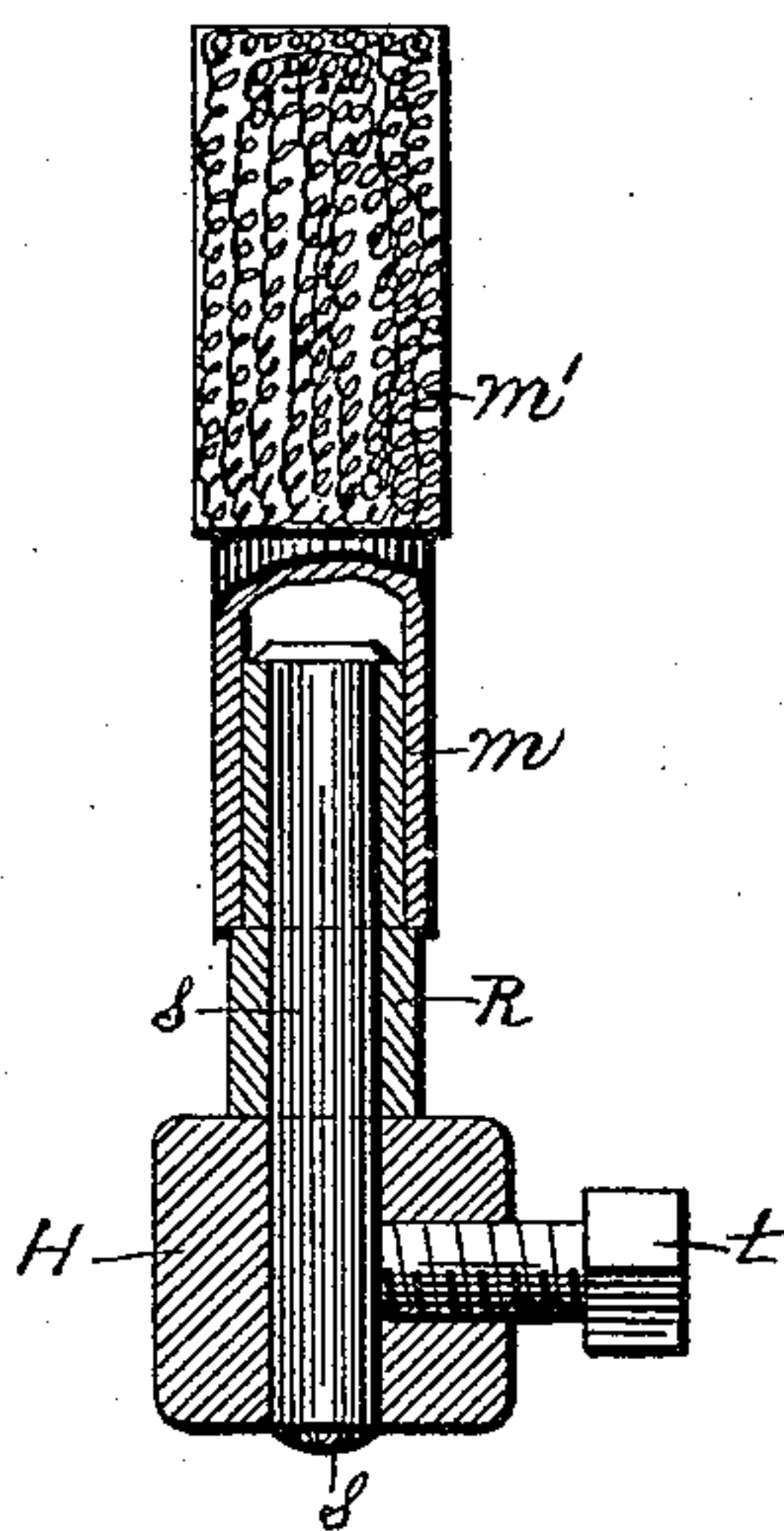
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Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWIN K. MARTIN, OF LANCASTER, PENNSYLVANIA, ASSIGNOR TO THE
CONESTOGA CIGAR MACHINE COMPANY, OF SAME PLACE.

PROCESS OF MAKING CIGARS.

SPECIFICATION forming part of Letters Patent No. 451,178, dated April 28, 1891.

Application filed November 12, 1889. Serial No. 330,062. (No specimens.)

To all whom it may concern:

Be it known that I, EDWIN K. MARTIN, a citizen of the United States, residing in Lancaster, in the county of Lancaster and State of Pennsylvania, have invented an Improvement in Processes for Making Cigars, of which the following is a specification.

This invention relates to improvements in making cigars in which both ends are tapered, and is particularly applicable in making a class of cigars known as "Perfecto." Cigars of this class have the tuck (the end to which the fire is applied) tapered to a small point in the same manner as the head is tapered. In cigars made from scraps this tapering of the tuck prevents the filling material from sifting or working out at that end, as it is liable to do even when the cigars are transported in packages, and is almost sure to do when they are carried in the pockets of consumers, and for this reason cigars so made are very popular in the market.

In making cigars either by machinery or hand the binder is rolled about the fillers from the head toward the tuck, and when scrap-fillers are used this tends to force or crowd them toward the tuck of the cigar. Hence as made by the ordinary processes the fillers in the tuck are crowded and packed so tight in that end of the cigar when it is compressed to taper it that the draft is seriously interfered with or entirely prevented, thus more or less impairing the value of the cigar or rendering it worthless. To overcome this objection, it has been necessary to remove or shift a portion of the filling in the tuck after the binder is wrapped about it to permit the necessary taper to be given to that end of the cigar. Necessarily this operation is a slow and imperfect one, as the surplus tobacco must be forced toward the end by outside pressure and then be picked or drawn out, so that the filling remaining in that end of the cigar is unequally distributed, being packed unduly tight at certain points and left very loose at others. In consequence of this difficulty in making them and the large proportion of those made proving worthless or unfit for the market the price of this class of cigars is kept far above what it would otherwise be.

The object of my invention is to entirely prevent any filling material from being forced into the tuck when said material is rolled in the binder; and to this end my invention consists in rolling a stopper in the cigar in such manner that when the fillers are wrapped in the binder the end of the latter, which is to form the tuck, shall be wrapped about the stopper. This can be done when the cigar is made either by hand or machinery.

The manner of carrying my process into effect is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a cigar-bunching machine, illustrating a machine for carrying my invention into effect. Fig. 2 is a plan view of the table in the position occupied by it when the filling material is received in the pocket in the apron, the stopper resting in the bottom thereof. Fig. 3 is a view of an open binder with the fillers and a stopper laid thereon preparatory to rolling the bunch by hand; Fig. 4, a view of the bunch after it has been rolled, the stopper being yet in the bunch; and Fig. 5 is an enlarged view of the stopper, shown partly in section.

Referring to the details of the drawings, A represents the frame; C, a reciprocating table rigidly connected by arms to the rock-shaft O; P, a bunching-apron which passes over a roller S, journaled in the front of the frame and with which a pocket is formed in a recess in the table, and I a hopper from which the filling material is fed into the pocket. The table G is operated by a treadle T, connected by a link with an arm D, rigidly secured to the rock-shaft O. The mechanism above the table is actuated by a lever F, fulcrumed on the shaft 9, the lower end being connected with an arm E of rock-shaft O by a link e. A rolling stopper R, journaled in the head H of a sliding arm B, rests on one side of the bunching-apron. The arm B extends backward from the table between it and the frame and has jaws V formed on its rear end, which engage the shaft 9.

In operating, the machine being in the position shown in Fig. 1, the stopper rests upon the side of the bunching-apron in the pocket formed therein, and a binder (shown by dot-

ted lines M, Fig. 2) is held in the front of the pocket in position for being wrapped about the filler. Upon the depression of the treadle T a charge of fillers is delivered from the hopper into the pocket in the apron inside of the roller, and the table is rotated forward, carrying said pocket and stopper beneath and somewhat to the front of the roller S, the stopper and fillers being at the same time rolled in the binder. As the rear of the table passes beneath roller S the stopper and bunch are freed from it and the bunching-apron, the stopper being received on the projection c^2 of a side rib of the table-frame, when the bunch is pulled off of the stopper by hand. After the pressure is withdrawn from the treadle it is again drawn up by a spring, forcing the table back to the position shown in Fig. 1. As the table is forced back the arm B is retracted by a spring z , fastened to it at g and to a pin p in the frame A. The backward movement of the arm B is limited by contact of a stop r , projecting therefrom, with the guide-rod d , and when the movement is completed the stopper rests in the pocket again formed in the bunching-apron P.

The stopper as here constructed revolves about a spindle S, secured in an opening in the head H of the sliding arm B by a set-screw t , and has a rubber or other flexible tubular cap m drawn over it, the inner end of which projects beyond the end thereof, so as to yield to the pressure put upon the bunch in rolling it. The inner end of this cap is again overlaid with a woolly covering m' to prevent particles of filling material from working out as the binder is being wrapped about the fillers.

The mechanism here shown for delivering the fillers from the hopper into the pocket in the apron is fully explained in Letters Patent No. 419,983, issued to the Conestoga Cigar Machine Company, January 21, 1890, and is not further described, as it does not affect the process here described. The operation of the treadle, the reciprocating table, and the bunching-apron, and the formation of the bunch by wrapping the binder about the fillers in a pocket or bight of the apron is also old and well understood by the trade, for which reason a more detailed description of those parts of the machinery and their operation is not deemed necessary.

In any machinery in which my process for making cigars is used the stopper should be so connected with the machine as to automati-

cally assume a position on the table or in the pocket in the apron where the fillers are delivered to be rolled in the binder as to be in place to be rolled in the end of said binder, that upon being withdrawn from the bunch the end thereof may be hollow to permit the necessary taper to be given it; but I do not confine myself to any particular manner of placing the roller in position to be wrapped in the binder, or of holding it in such position while the operation is being performed, as there are a number of ways in which that can be done. Nor do I confine myself to any given shape of the stopper either longitudinally or transversely, for the taper may be uniform from end to end, or it may vary throughout different parts of the length to meet the varying demands of the trade for "fancy" shaped cigars; or in cross-section it may be round, oval, octagonal, or any other form desired.

To carry my invention into effect when the cigar is made by hand (see Figs. 3 and 4) I place a roller or stopper 25 on the end of the binder M, extending it over or onto the wrapper, so that when rolled in said wrapper the inner end will extend into the bunch to the point at which the taper of the tuck is to begin. I then roll the filler 24 in the binder as usual, but at the same time roll the stopper in with it. After the wrapping of the filler in the binder I withdraw the stopper and form the necessary taper on the end of the bunch with that part of the binder which was wrapped about the stopper.

If desirable, the stopper may be used at both ends of the cigar-bunch to give each a particular or peculiar shape. It will thus readily be seen that my invention can be used (and it is so intended to be used) to give cigars any fancy shape at either one or both ends, as the market may demand.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The process of making cigars, which consists in rolling a stopper in an end of the bunch as the binder is wrapped about the filler, withdrawing the stopper after the formation of the bunch is completed, then compressing the binder at the end of the bunch and forming the tapered end of the cigar, substantially as and for the purpose specified.

E. K. MARTIN.

Witnesses:

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