

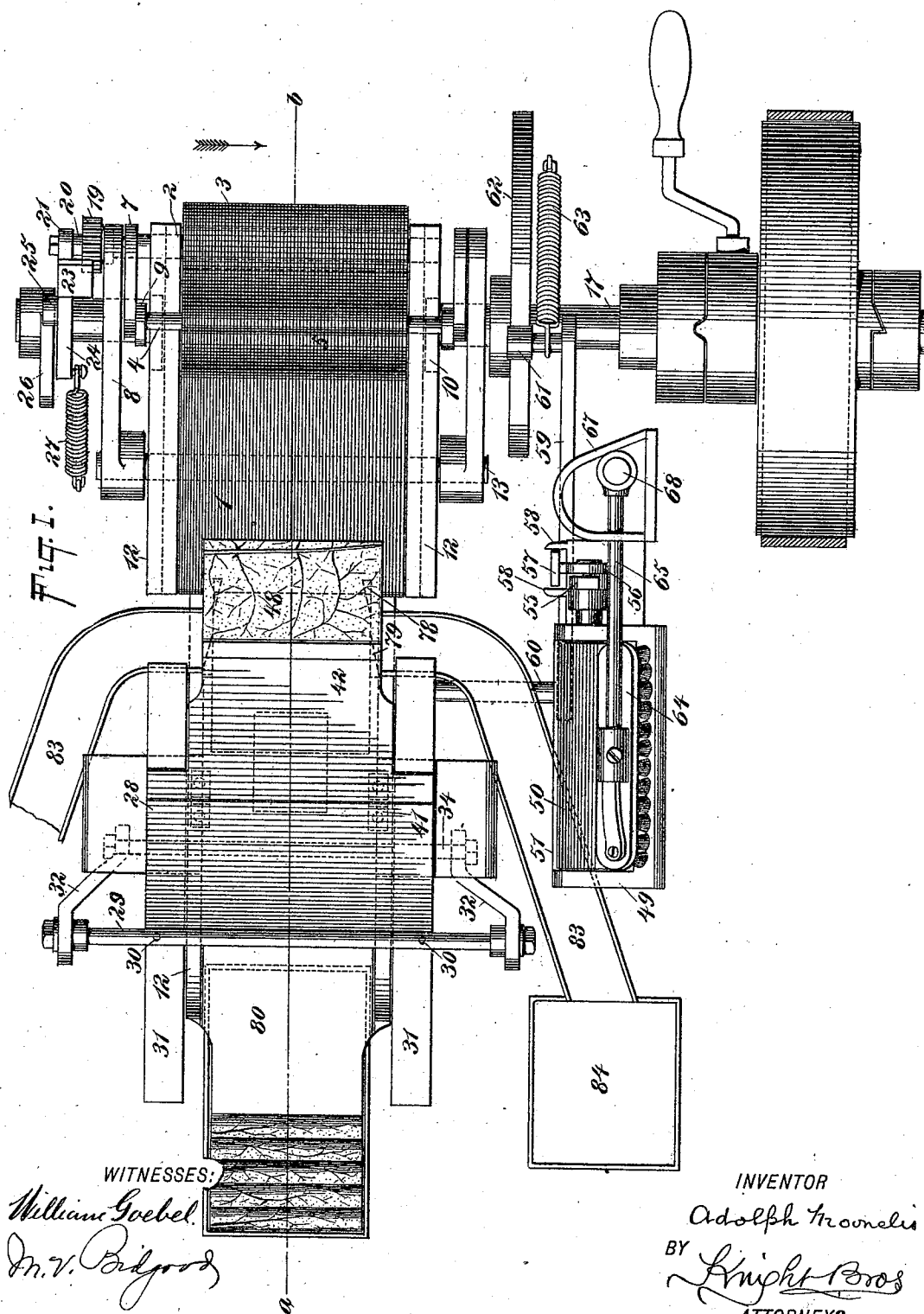
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8 Sheets—Sheet 1.

A. MOONELIS.
CIGARETTE MACHINE.

No. 514,238.

Patented Feb. 6, 1894.



(No Model.)

8 Sheets—Sheet 2.

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CIGARETTE MACHINE.

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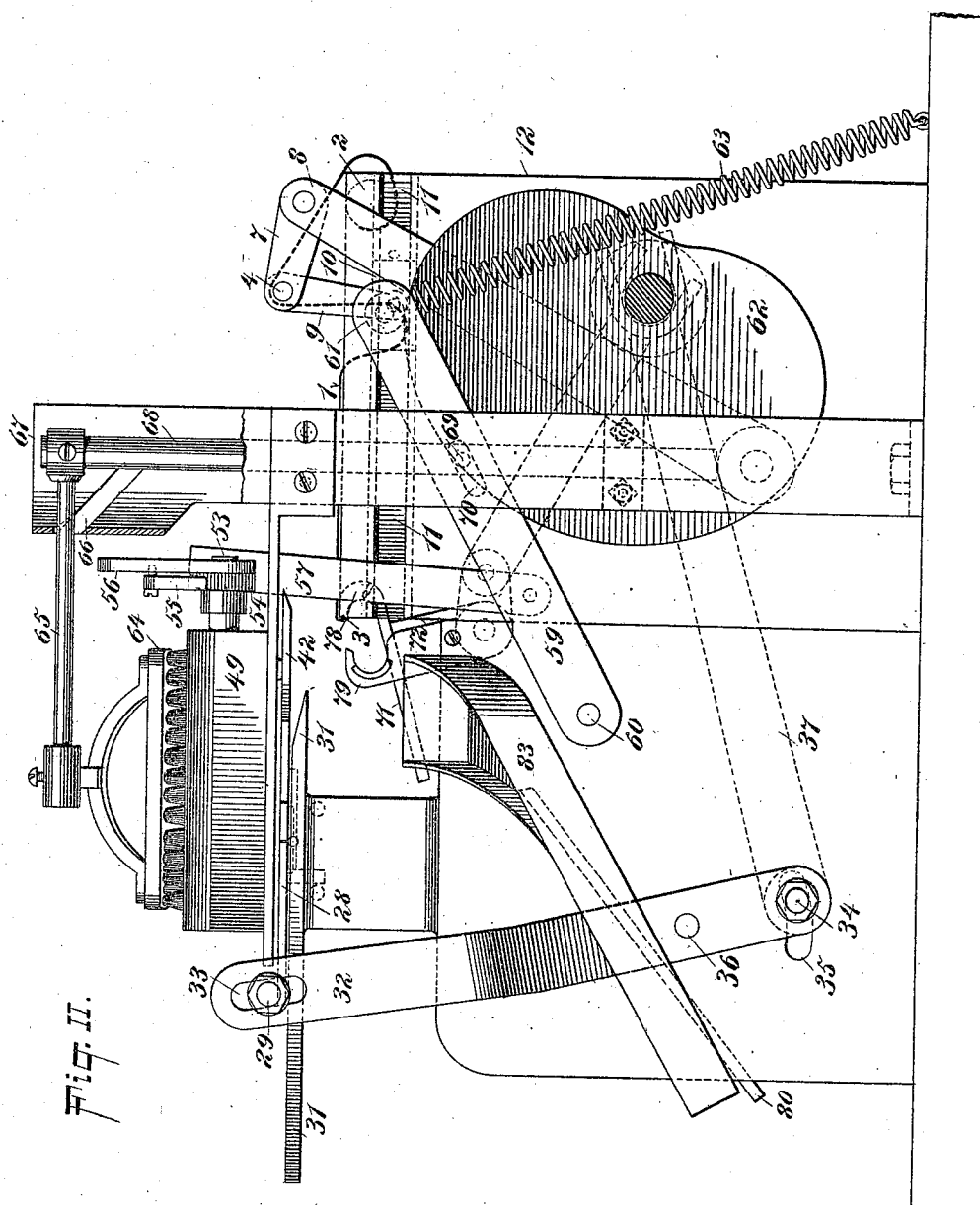


Fig. II.

WITNESSES:

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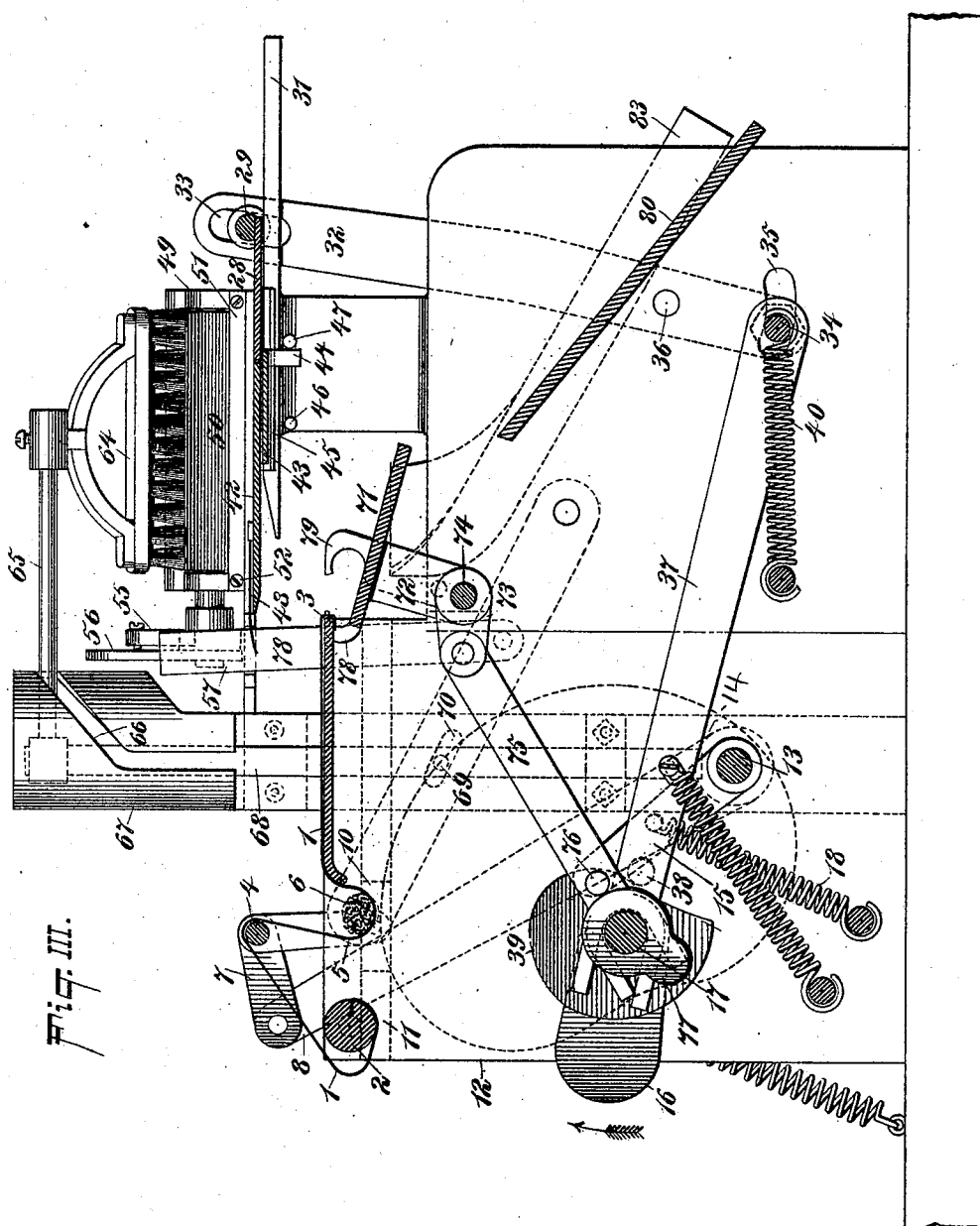
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A. MOONELIS.
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No. 514,238.

Patented Feb. 6, 1894.



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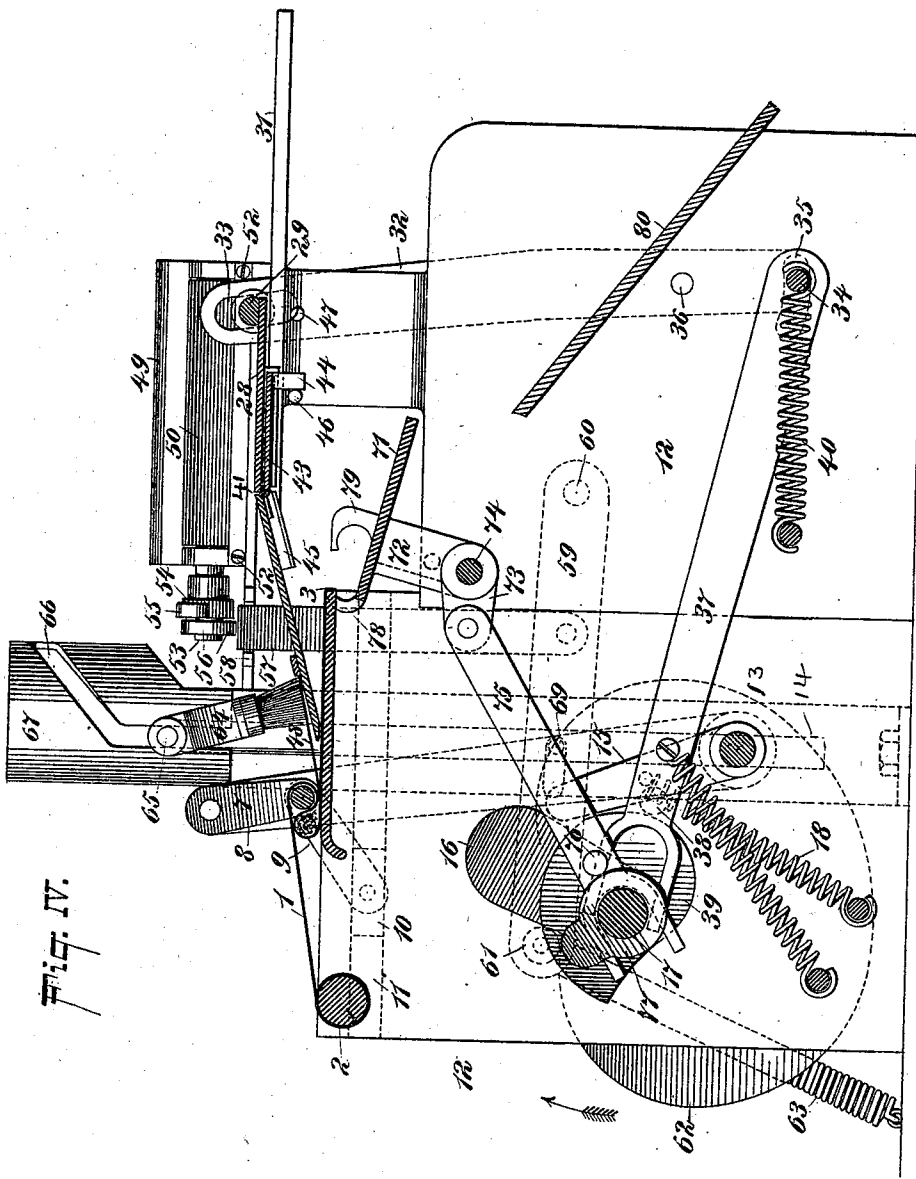
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A. MOONELIS.
CIGARETTE MACHINE.

8 Sheets—Sheet 4.

No. 514,238.

Patented Feb. 6, 1894.



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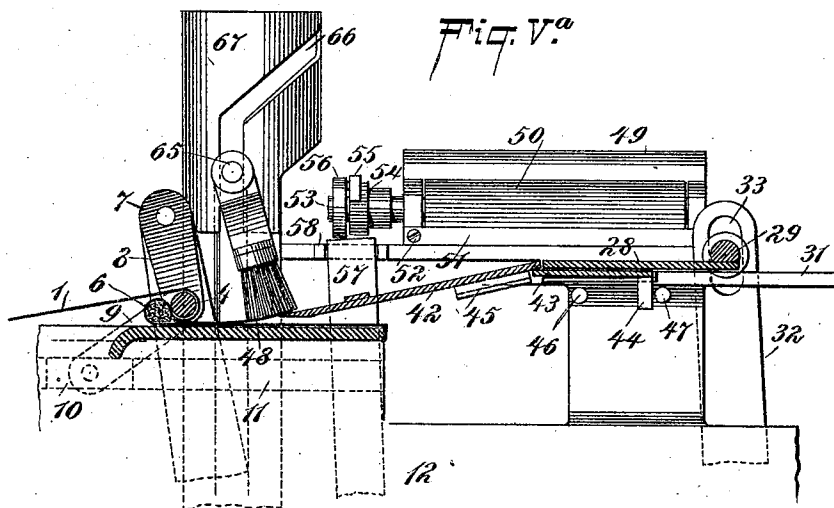
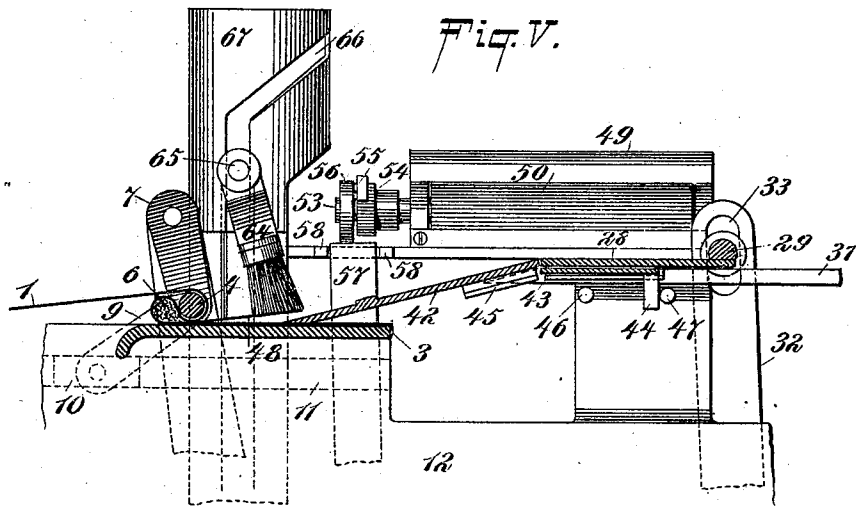
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A. MOONELIS.
CIGARETTE MACHINE.

No. 514,238.

Patented Feb. 6, 1894.



WITNESSES:

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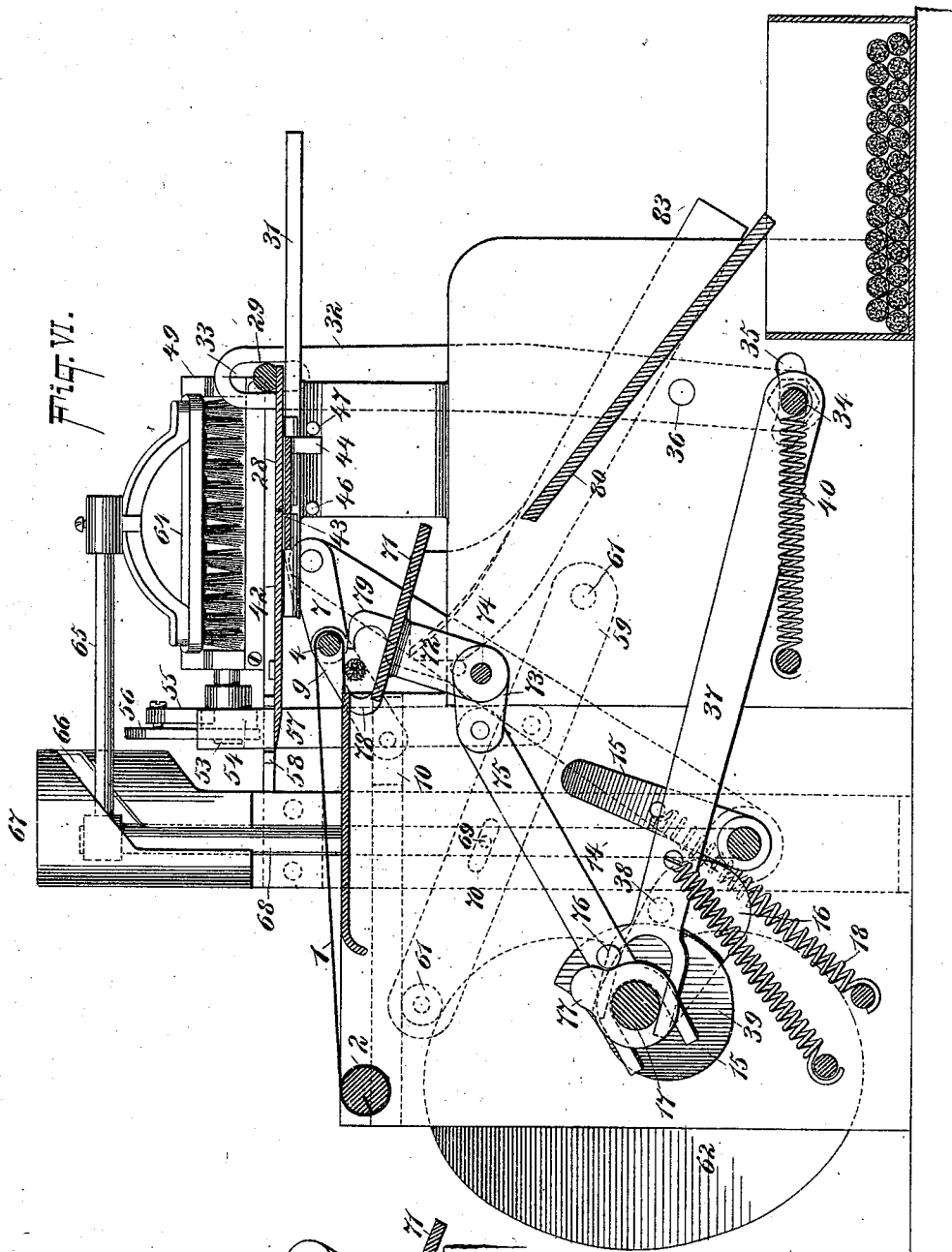
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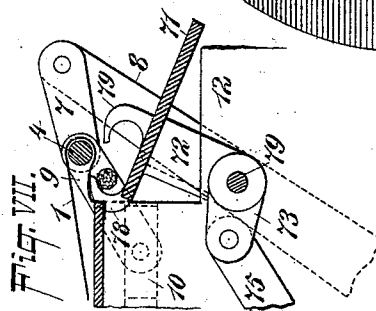
A. MOONELIS.
CIGARETTE MACHINE.

No. 514,238.

Patented Feb. 6, 1894.



WITNESSES:
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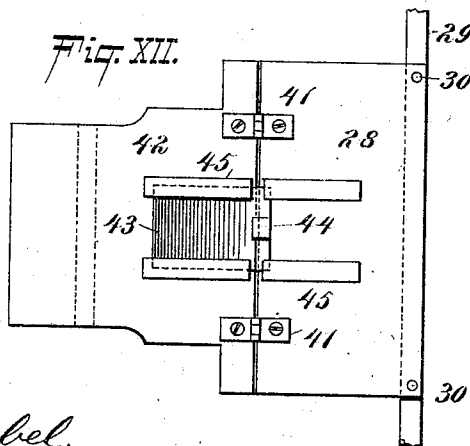
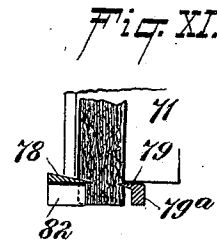
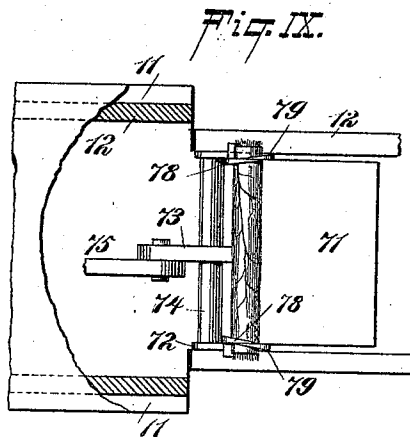
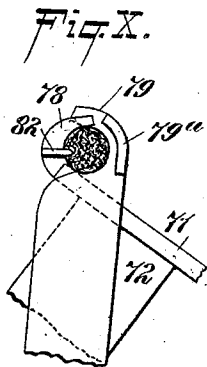
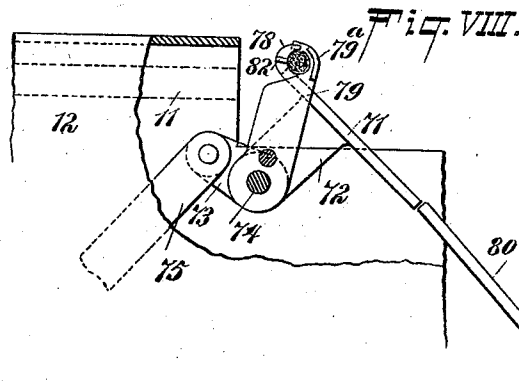
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8 Sheets—Sheet 7.

A. MOONELIS.
CIGARETTE MACHINE.

No. 514,238.

Patented Feb. 6, 1894.



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(No Model.)

8 Sheets—Sheet 8.

A. MOONELIS.
CIGARETTE MACHINE.

No. 514,238

Patented Feb. 6, 1894.

Fig. XIV.

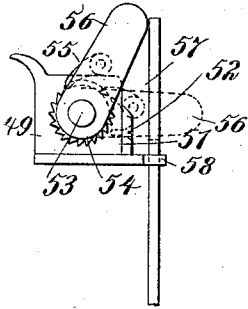


Fig. XIII.

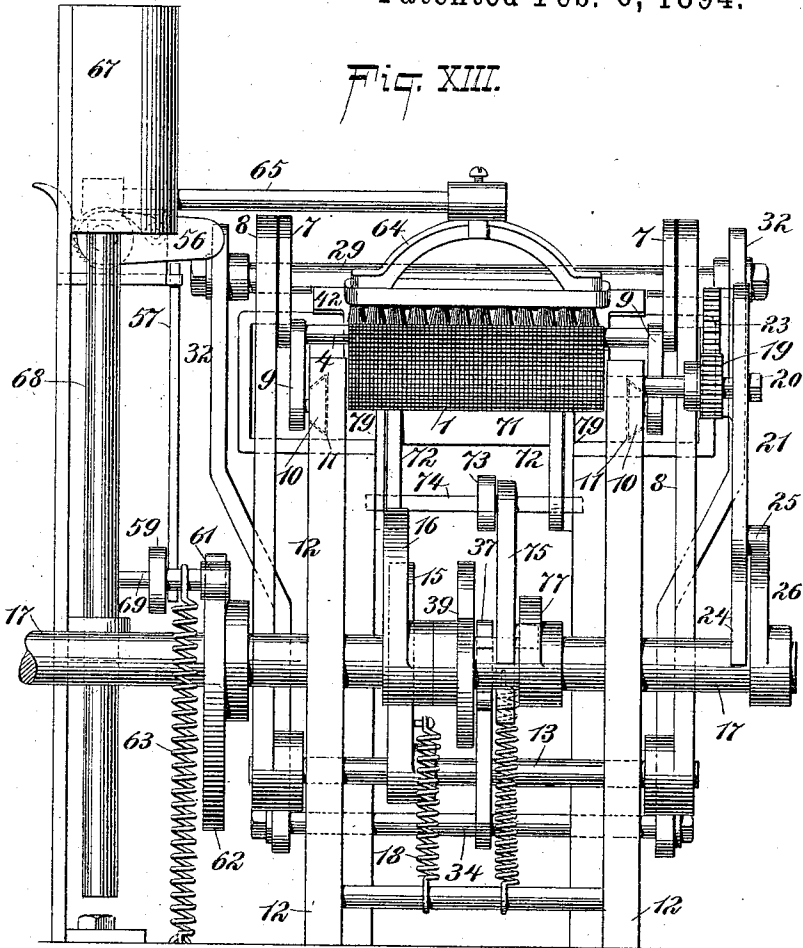


Fig. XV.

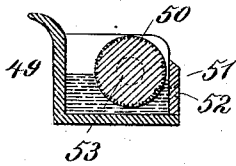
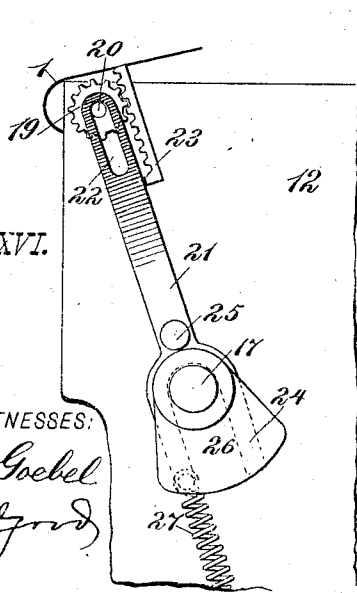


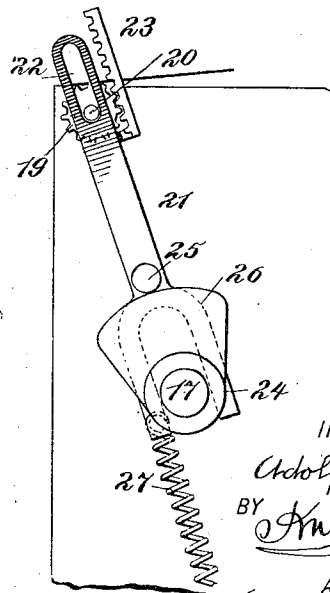
Fig. XVI.



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D. R. Briggs

Fig. XVII.



INVENTOR

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BY Knight Bros

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ADOLPH MOONELIS, OF NEW YORK, N. Y., ASSIGNOR TO THE INTERNATIONAL CIGARETTE MACHINERY COMPANY, OF SAME PLACE.

CIGARETTE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 514,238, dated February 6, 1894.

Application filed July 20, 1892. Serial No. 440,631. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH MOONELIS, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Cigarette-Machines, of which the following is a specification.

My invention relates to the manufacture of all tobacco cigarettes, that is to say, cigarettes which employ tobacco fillers and tobacco wrappers in contradistinction to the ordinary paper wrapper cigarettes.

My invention relates essentially to what I term a terminal apron on which the filler is rolled and which delivers it in a rolled condition to the wrapper proper for its reception with means for operating said terminal roller from the rear end so as to produce the necessary and desired tension on the apron.

My invention consists in an improved form of wrapper delivering carrier whereby the wrapper is carried toward the filler in a horizontal direction and then dropped into position at the moment the filler is ready to be incased within it and a pasting device consisting of a brush which is brought into contact with the outer edge of the wrapper at the proper moment and held in contact with the same by the retreating wrapper carrier in such a manner that as the wrapper carrier leaves the wrapper it will press slightly upwardly against the wrapper and its pasting brush so that the extreme edge will be fully gummed.

My invention also consists in an improved cutting device whereby the butts are severed from the cigarette and delivered in a proper manner to a receptacle and having means for mutilating the butt ends of the cigarette so that they can be utilized for fillers.

Although my invention is described as particularly applicable to a cigarette machine yet with slight modifications it can be applied to the manufacture of cheroots and wherever in the specification I use the word cigarette or cigarette machines, I wish it to be understood that I contemplate applying the same devices to the manufacture of cheroots and desire that my claims should be construed as covering such a mechanism.

Referring to the accompanying drawings

which form a part of this specification: Figure I represents a plan view of my improved cigarette machine. In this figure the machine is shown in its normal position ready for operation; but before initial movement has been given to any of the working parts. Fig. II is a side elevation of my improved cigarette machine. This also shows the machine in a position of rest. Fig. III is a longitudinal section on the line *a, b* Fig. I looking in the direction of the arrow. In this view the pocket in the apron is shown filled with the tobacco for the cigarette filler. This position I term the first position. Fig. IV is a similar longitudinal section. The machine is now in operation, and has assumed what I will term the second position. Figs. V and V^a are detail views; the first showing the wrapper holding plate as having moved forward after the wrapper has been pasted, and Fig. V^a showing the means for lifting the wrapper plate or carrier and pressing the wrapper up against the brush before it finally leaves it. Fig. V represents the third position, and Fig. V^a the fourth position. Fig. VI is a longitudinal section of my cigarette machine. The machine is here shown in the fifth position. In this position the cigarette has been wrapped, rolled and pasted and is dropping upon the knife table. Fig. VII is a detail view of the knife table showing means for positively removing the cigarette from the apron; it illustrates the sixth position. Fig. VIII is a detail view, and Fig. IX is a detail plan view showing the cutting operation, the eighth position. Figs. X and XI are enlarged views of the same. Fig. XII is a detail view showing the means for operating the wrapper carrier or plate. Fig. XIII is a rear elevation of the machine showing the machine in the position shown in Fig. IV, the second position. Fig. XIV is a detail view of the pawl and ratchet mechanism for operating the pasting cylinder. Fig. XV is a cross section of the gum box. Fig. XVI is a detail view of the mechanism for taking up the slack of the apron. Fig. XVII is a similar view of the same mechanism in its other position.

In describing the drawings and the machine, I will refer to the front of the machine as being at the left in Fig. I and the rear of

the machine at the right. At 1 I show a belt or apron which I elect to term a "terminal" belt or apron in contradistinction to an endless belt or apron. This apron 1 is permanently attached at the rear end of the machine to a roller 2 as shown in Fig. III and at its forward end it is attached to the permanent table 3 also shown in Fig. III. Between its two terminals it is adapted for a considerable portion of its length to lie upon the table 3 and between the rear end of the table 3 and the roller 2 it is arranged over a traveling bunching roller 4. Between the traveling bunching roller 4 and the rear end of the table 3 the apron is adapted to be depressed for the purpose of forming a pocket or receptacle 5 for the filler 6. The bunching roller 4 is mounted upon arms 7 at both ends; the latter are journaled to levers 8. The arms 7 are adapted to turn relatively to the levers 8 and are for the purpose of directing the movements of the bunching roller 4. The bunching roller is also provided with downwardly extending links or arms 9 which are swiveled to longitudinally traveling slides or guide plates 10, said guide plates moving in guides 11 of the frame 12. These guide plates can be seen in longitudinal sections and more particularly in the end view, Fig. XIII. Levers 8 at their lower ends are mounted upon and rigidly secured to a vertically sliding and turning shaft 13. This shaft is adapted to move in guides 14 of the frame 12. The shaft 13 also carries arm 15 likewise rigidly secured thereto which arm is in contact with the cam 16, the latter being mounted upon the main shaft 17. As the main shaft rotates carrying the cam 16 with it, the cam 16 bearing against the face of the arm 15 and the arm 15 being fixedly secured to the shaft 13 which carries the levers 8, the levers 8 will be compelled to travel forward toward the front of the machine carrying the arms 7 and bunching roller 4 with them. This movement will cause the apron 1 to be folded upon itself and the parts will gradually assume the second position—the position shown in Fig. IV as the slides 10 will be compelled to travel rearwardly drawing the arms 9 and 7 downwardly so that the roller will be pressed against the table 3 and the apron 1 will be folded over upon itself as shown in Fig. IV inclosing the cigarette filler 6 in a loop.

A spring 18 shown in Figs. IV and XIII is provided for withdrawing the arm 15 and its connecting parts to their normal position after the operation described and to be described.

As before stated the rear end of the terminal apron 1 is mounted upon a roller 2. This roller is provided with a toothed wheel or pinion 19, see Figs. XVI and XVII. This toothed wheel is provided with a pin 20. At 21 I show an arm having a slot 22 forming a guideway for the pin 20. The arm 21 is provided with a rack 23 which intermeshes with and is adapted to operate the pinion 19. The lower end of the arm 21 is provided with legs

or fingers 24 which straddle the main shaft 17 and is also provided with a pin 25 adapted to be operated upon by a cam 26 fixedly secured to the main shaft 17. It will be seen by referring to Figs. XVI and XVII that as the shaft 17 rotates the cam 26 will bear against the pin 25 and cause the arm 21 to gradually travel upward thereby moving the rack 23 in a like direction and causing the rack 19 to rotate and wind up the terminal apron 1 upon the roller 2. The object of this construction is to provide means for tightening or taking up the slack of the terminal apron as the filler is being rolled for it will be remembered that the apron is fixedly secured at its forward end to the table 3 and I thus provide means for drawing it taut from the opposite end of the machine and taking up all the unnecessary slack during the operation of the rolling of the filler so that by the time the parts have reached the position, to wit, the second position shown in Fig. IV, the apron roller 2 and the apron will have reached the position shown in Fig. XVII and the apron will be drawn as tight as possible thus securing a compact filler before its introduction upon the wrapper. A spring 27 is shown in Fig. XVII for withdrawing the arm 21 to its normal position after the pin 25 has passed beyond the cam 26.

I will now proceed to a description of the wrapper delivering contrivance which is as follows:—At 28 I show a traveling table or plate fixedly secured to a bar 29, by means of pins 30. This plate travels on tracks or guides 31 and the bar 29 is journaled in levers 32, the levers 32 being provided with slots 33 so as to accommodate a slight vertical movement of the said levers upon the bar 29. The vertical levers are two in number and extend downwardly and are connected at their lower ends by means of a cross bar 34 which cross bar extends through semi-circular slots 35 in the frame 12. The levers are pivoted at 36 to the frame 12 and are provided with a rearwardly extending arm 37 which straddles the main shaft 17 and is provided with a pin 38 which travels upon a cam 39 fixedly secured to the main shaft 17. These parts are retracted to their normal position by a spring 40. The table or plate 28 has hinged to it at 41 a narrower wrapper receiving plate 42. The wrapper receiving plate is kept normally in a horizontal position as shown in Fig. III by means of an auxiliary horizontally moving plate 43 having a downward extending lug 44. The auxiliary plate 43 is supported in guides 45 depending from the main plate 28 and likewise from the wrapper receiving plate 42. Pins 46 and 47 are provided on the main frame in the line of travel of the lug 44 of the auxiliary plate. As the shaft 17 rotates in the direction of the arrow in Fig. III and the cam 39 which is fixedly secured thereto likewise revolves the said cam will bear against the pin 38 of the arm 37 and cause the lower ends of the vertical levers 32 to

move forward and the upper ends of said levers to travel backward. This movement will cause the plate 28 and the parts secured thereto to likewise move backward. When the lug 44 of the auxiliary plate has reached the pin 46, the further movement of said plate will be arrested but the main plate 28 and the wrapper carrying plate will still continue to travel backward until the hinge has reached the back end of the auxiliary plate. When the parts have reached this position, they are at the extreme end of the stroke of the wrapper receiving plate which will suddenly drop carrying the wrapper 48 already placed thereon with it. The parts have now reached the position shown in Fig. IV, to wit, the second position heretofore referred to.

I will now proceed to describe specifically my improved gumming box and pasting contrivance. In Fig. XV I show a detail view of the gum box. The gum box 49 is mounted upon the main frame and is provided with a ribbed feeding roller 50. At 51 I show a plate that may form one side of box 49, and it is attached thereto by means of screws 52 passing through said plate and entering the ends of box 49. The roller is provided with a shaft or journal 53, said shaft having mounted thereon outside of the gum box a ratchet wheel 54. See Fig. XIV. At 55 I show a dog intermeshing with said ratchet wheel and turning it and the roller. The dog or pawl 55 is mounted upon a lever 56, the latter being loosely mounted upon the shaft 53. A vertically moving arm 57 is provided which works in guides 58 of the main frame 12 (see Fig. I) and which bears against the underside of the lever 56 and is adapted to raise the same periodically thus rotating the ribbed feeding roller 50 in the gum box 49. This arm 57 is, at its lower end connected to and is operated by the lever 59. This lever 59 is pivoted at 60 to the main frame 12 and is provided at its other end with roller 61 which roller bears upon and is adapted to be operated by the large cam 62 mounted upon the main shaft 17. A spring 63 is adapted to retract the above parts to their normal position.

At 64 I show a brush for carrying the gum from the gum box to the wrapper. This brush is mounted upon an arm 65, the said arm being adapted to travel in a guide or way 66 of the semi-circular cam 67. The arm 65 is mounted upon the vertically moving rod 68 and the latter is provided with a pin 69 which extends into a slot 70 of the lever 59 so that as the lever 59 is raised and lowered by means of the cam 62, the pin 69 will cause a like vertical movement in the vertical rod 68 and this in turn through the medium of the arm 65 will cause a movement in the brush 64. This movement is at first angular in a direction toward the wrapper as shown in Figs. V, V^a and then vertical until the brush reaches the position shown in Fig. IV to wit, the second position hereinbefore described. At this point, the brush is delivering the gum or paste to

the wrapper 48 and near the forward longitudinal edge of said wrapper. It will now be seen that the filler has been rolled; that the wrapper has been brought backward to a point where it can receive the filler and that the forward longitudinal edge of the wrapper has been provided with paste or gum all of which movements have been explained in connection with Fig. IV which as before stated shows these parts in what I term the second position.

I will now proceed to describe what I have termed the third position. This position is shown in Fig. V. As will be seen by referring to Fig. IV, the cam 39 is passing away from the pin 38 of the lever 37. Thereupon the spring 40 will draw upon the levers 32 and cause an immediate withdrawal of the upper end of said levers carrying the plate 28 with its attached auxiliary plate 43. The wrapper receiving plate will be thus withdrawn from the wrapper without being lifted. The parts have now reached the position shown in Fig. V, to wit, the third position. At this point the lug 44 comes in contact with the pin 47 upon the main frame and causes the further movement of the auxiliary plate 43 to be arrested. The main plate 28 with the wrapper receiving plate will however still continue to move forward but owing to the stoppage of the auxiliary plate 43, the wrapper receiving plate will be lifted causing the said wrapper receiving plate to press against the wrapper just as it is leaving it and force it against the paster. This position is shown in Fig. V^a and is what I term the fourth position. This special operation is of particular value for the reason that the wrapper will receive its full quota of gum or paste at the extreme edge and avoids the danger of depositing too much paste upon the wrapper, a drawback obtaining in many machines now in use.

I will now proceed to describe the fifth position shown in Fig. VI of the drawings. The bunching roller 4 has been thrown forward to its extreme position by reason of the cam 16 pressing against the arm 15. In this position, the apron 1 is drawn taut, the pocket or filler receptacle 5 being stretched as shown, and as the cigarette has been already rolled and wrapped in the passage from the position shown in Fig. V^a to the position shown in Fig. VI, it drops by gravity upon what I will term a cutting table 71. This cutting table has an arm 72 having a finger 73. These parts are mounted upon shaft 74 hung in the main frame 12. At the outer end of the finger 73 is journaled a lever 75. The lever 75 is provided with a pin 76, the lever straddling the main shaft 17 and the pin 76 being operated by cam 77 fixedly secured to the said shaft 17, the operation of the parts being that when the cam 77 bears against the pin 76, the lever 75 will move upwardly and forwardly and cause the cutting plate or table 71 to turn or tilt upon the axis 74. The cutting table is provided with cutters 73 at its rear

end, said cutters being semi-circular in shape and pointed at their upper ends and as they travel backward with the cutting table will grasp the cigarette if the said cigarette is still attached by reason of any intermediate gum to the terminal apron and this position is shown in detail in Fig. VII and is what I term the sixth position. A further movement of the above parts will cause the cigarette to be pressed against the stationary cutters 79 suitably supported in the main frame and at opposite sides of table 71 which form complementary cutters to 78. This is the seventh position and is shown in detail in Figs. VIII and IX, the cutting table 71 having been tilted over so as to form a line parallel with the chute or shed 80. As soon as the butts of the cigarette are severed from the cigarette proper, the said cigarette will slide down the table 71 and chute 80 into the receptacle 81.

I further provide in addition to the cutters 78 and 79 a knife or knives 82 which cut the wrapper of the protruding butts and permit the contained filler with the said severed wrapper to separate freely. This material forms the waste from the cigarette and is delivered into chutes 83 and receptacles 84 arranged upon both sides of the machine as shown in plan view in Fig. I. The fixed cutters 79 are provided with stops 79^a which serve to strengthen or support the cigarette while being cut and insure the butts being completely mutilated.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a cigarette machine, the combination of the terminal filler belt or apron fixedly secured to a table at its forward end, with said table, a tension roller to which the rear end of the apron is attached, an intermediate bunching roller adapted to operate as and for the purposes set forth, the tension roller being provided with a take-up device consisting of the sliding arm 21 having a slot 22, means for moving said arm, rack 23 carried by said arm, pinion 19 connected with the tension roller, and a guide pin 20 carrying the roller and mounted in the slot, as shown and described.

2. In a cigarette machine, the combination of the terminal filler belt or apron attached at its forward end to a table, with said table, and a take-up mechanism consisting of the following parts, to wit: a roller 2 to which the apron is secured having the pinion 19 and pin 20, an arm 21 provided with a slot 22 in which the pin is adapted to travel, a rack 23 intermeshing with the pinion 19, a pin 25 mounted on the arm 21 and main shaft 17 provided with cam 26, all of the said parts being arranged substantially as, and adapted to operate for, the purposes set forth.

3. In a cigarette machine, the combination of a table, a terminal filler belt or apron fixedly secured at its forward end to the table,

a take-up roller to which said apron is secured, said apron being at its rear end arranged to have a pocket formed in it between the said roller and table, a bunching roller intermediate the tension roller and the table, and means for moving said bunching roller, pivoted arms connected therewith and slides and links connected with said arms, all arranged for depressing the bunching roller and closing a filler containing pocket, then rolling the filler and wrapper forward over the table and finally discharging the cigarette beyond the forward end of said table.

4. In a cigarette machine, the combination of a table, a terminal filler belt or apron and a take-up device, the apron being fixedly secured at its forward end to the table and at the rear end to the take-up device, with an intermediate bunching roller 4, arms 7, slides 10, links connecting said slides and arms, levers 8 pivoted to the arms 7, said levers having a sliding movement in the main frame and provided with an arm 15, with a cam 16 mounted upon the main shaft 17 and adapted to act substantially as and for the purposes set forth.

5. In a cigarette machine, a wrapper delivering device consisting of a divided and hinged traveling table, means for permitting the descent of the forward part while delivering the wrapper combined with means for moving the wrapper carrier to and fro, and means for raising the forward part of the carrier to a level with the other part, substantially as described.

6. In a cigarette machine, a wrapper carrier and deliverer composed of two parts hinged together, one part being wider than the other, guides in the main frame in which the wider part travels, the narrow part of said carrier descending to deliver the wrapper, means for permitting said descent, combined with means for moving the wrapper carrier to and fro, and means for raising the narrow part of the carrier to a substantial level with the wider part, as shown and described.

7. In a cigarette machine, the combination of a transversely divided wrapper delivering table hinged at the point of separation as described and having means for feeding the table forward and a sliding support for the forward portion of the table and means co-acting therewith to permit the latter to drop into the wrapper delivering position, as set forth and shown.

8. In a cigarette machine, the combination of a wrapper delivering device consisting of a table transversely divided, the said portions being hinged together as shown, means for feeding the traveling table inwardly and guides or ways for supporting the forward portion horizontally until the wrapper has reached approximately the same vertical plane as the filler, all the parts being so arranged as that when the hinged wrapper table

reaches such a position, the said hinged table will drop and deliver the wrapper to the filler, substantially as shown and described.

9. In a cigarette machine, a wrapper delivering table arranged to travel as shown, the said wrapper delivering table being divided transversely, the divided portions being hinged together and both portions being arranged to travel in horizontal guides or ways, combined with a sliding auxiliary table for supporting the forward portion of the wrapper table during its movement toward the filler and means substantially as shown and described for arresting the movement of the auxiliary table in the manner and for the purposes set forth.

10. In a cigarette machine, the combination of a traveling wrapper delivering table, horizontal guides as shown upon which said table moves, the said wrapper delivering table being divided transversely, and the two parts being hinged to each other at the point of division, an auxiliary table for supporting the wrapper delivering table, the said auxiliary table having a downwardly extending lug, stops upon the main frame to regulate the travel of the auxiliary table, and means for operating the traveling and auxiliary tables, as and for the purpose set forth.

11. In a cigarette machine, the combination of a wrapper delivering table arranged to travel as shown and divided transversely, the two portions being hinged together, an auxiliary table, and means for moving said tables toward the filler in conjunction with each other, and away from the filler successively, as and for the purpose set forth.

12. In a cigarette machine, a jointed wrapper delivering table or carrier, horizontal guides in which said table travels toward the filler, a sliding auxiliary table below the same and operating therewith, means for operating said sliding auxiliary table, and means for moving the wrapper carrier horizontally toward the filler, whereby the wrapper is lowered, as and for the purpose set forth.

13. In a cigarette machine, the combination of a wrapper delivering carrier or table transversely divided as shown, the divided portions being hinged to each other and both of such portions having longitudinal tracks or ways, an auxiliary table arranged to travel in said ways and to extend normally across the adjoining edges and hold them in fixed and parallel position, a lug extending downwardly from the auxiliary table, pins arranged upon the main frame and means substantially as shown and described for impelling the carrier toward the rolling table for delivering the wrapper and of withdrawing the carrier after the wrapper has been engaged by the roller.

14. In a cigarette machine, a wrapper delivering table having a vertically movable portion, means for delivering the wrapper to the filler by a downward movement of said vertically moving portion, means for withdrawing said table horizontally and means

for pressing the vertically movable portion of said table slightly upwardly to bring it against the outer edge of the wrapper when leaving.

15. In a cigarette machine, a wrapper delivering table having a portion which descends, and means to permit the descent thereof to deliver a wrapper to its filler, combined with a terminal belt or apron, a rolling table, and a bunching roller, which rolls the filler preliminarily and forms the cigarette subsequently by continuous sliding and reciprocating movements and means for imparting such movements to said roller, as set forth and shown.

16. In a cigarette machine, the combination of a table, a tension roller and a terminal filler belt or apron fixedly secured at one end to the table and at the other end to the tension roller, an intermediate reciprocating bunching roller which engages the apron and rolls the filler, means for operating the same, a wrapper delivering carrier or table having a vertically moving portion which descends to deliver the wrapper when the filler is ready to be rolled therein, means to permit the descent of said portion and means to withdraw said table upon the advance of the bunching roller, as and for the purposes set forth.

17. In a cigarette machine, the combination of a cigarette rolling table, a wrapper delivering table having a hinged portion which descends as shown, a support for said hinged portion to permit it to descend by a vertical movement upon the cigarette rolling table, a reciprocating bunching roller, an apron in which the cigarette is rolled a paster which gums the edge of the wrapper, and means for operating said roller and paster, as and for the purposes set forth.

18. In a cigarette machine, the combination of a wrapper delivering table divided transversely as shown, the two portions being hinged together, means for raising and lowering the forward part of the wrapper delivering table, means for impelling the wrapper table toward the cigarette filler, a pasting device and means for causing it to descend upon the wrapper to gum it, as set forth.

19. In a cigarette machine, the combination of a horizontally reciprocating wrapper delivering table or carrier, a pasting brush arranged to paste the outer edge of a wrapper while it is held on the delivery table, and means to bring said brush into contact with the wrapper, as and for the purposes set forth.

20. In a cigarette machine, the combination of a wrapper delivering table or carrier having a hinged portion adapted to descend and means for permitting the descent thereof, a pasting device consisting of a swinging and vertically descending brush arranged to paste the outer edge of the wrapper while it is on the wrapper carrier, and means for actuating said brush, as and for the purposes set forth.

21. In a cigarette machine, the combination of a reciprocating wrapper delivering table or carrier, a pasting device provided with a pasting brush which descends upon the wrapper while the wrapper is on the carrier and which maintains a fixed position while the wrapper carrier is retreating and until the wrapper is drawn therefrom by the rolling devices, and said rolling devices, and means for actuating said pasting device, as and for the purposes set forth.

22. In a cigarette machine, a pasting device consisting of the brush 64, arm 65, rod 68, a cam 67, adjacent to the arm 65 and having a guide or way 66, in which the arm 65 works, and means substantially shown and described for elevating and depressing the rod 68, for feeding and withdrawing the paste brush, as set forth.

23. In a cigarette machine, the combination of a stationary gum box 49, ribbed feeding roller 50 therein, ratchet wheel 54 connected with said roller, lever 56 having a suitable pawl for intermeshing with said ratchet wheel, a sliding arm 57 arranged to operate lever 56 and means substantially as shown and described for elevating the arm.

24. In a cigarette machine, a rolling apron, a tilting cutting table adjacent thereto and having a knife edge and a cutter arranged to receive the cigarettes from the rolling apron and to cut and discharge the same, combined with an abutment to receive the cigarette as the knife cuts it and means for operating the tilting table, substantially as shown and described.

25. In a cigarette machine, the combination of a rolling apron, a tilting cutting table adjacent to said apron and provided with knife edges arranged to move in the arc of a circle as described, with stationary knife edges at the side of the tilting table and co-acting with said moving knife edges, and means for operating the tilting table, as shown and set forth.

26. In a cigarette machine, the combination of a tilting cutting table provided with semi-circular knife edges, one arranged on each side thereof, stationary semi-circular cutting knives also arranged on each side thereof, the tilting table being mounted in the main frame of the machine, a cam mounted upon the main shaft and a connection between the tilting table and the cam whereby said tilting table is actuated, as and for the purposes set forth.

27. In a cigarette machine, the combination of the stationary table 3, a rolling apron, an inclined way or chute 80, with an intermediate tilting and delivering table having knives and stationary knives, all arranged to take the cigarettes from the rolling table, cut the butts therefrom and deliver the completed

cigarette to the way or chute aforesaid, and means for operating the tilting table.

28. In a cigarette machine, the combination of the stationary cigarette rolling table 3, a rolling apron, a tilting table in front of the rolling table provided with knife edges 78 and 82, stationary knife edges on both sides thereof of having means coacting with knife edges 82, an inclined way or chute for receiving the completed cigarette, and means substantially as shown and described connected to the main shaft of the machine for operating to tilt the cutting table, sever the butts and cigarette and deliver the completed cigarette to the inclined way, all arranged substantially as and for the purposes set forth.

29. In a cigarette machine, a cutting device consisting of a tilting table or frame upon which are mounted two semi-circular cutters 78, means for operating the tilting table, two stationary cutters mounted on the main frame of the machine to co-act with the movable cutters, and means carried by said cutters for mutilating the butts of the cigarette, all arranged substantially as set forth and shown.

30. In a cigarette machine, the combination of the cigarette cutter consisting of a tilting table having two semi-circular cutters, means for operating the tilting table, and two stationary semi-circular cutters adapted to co-operate with the movable cutters, the movable cutters carrying knives 82, and the stationary cutters having stops 79^a for mutilating the butts when separated from the cigarettes, as and for the purpose set forth.

31. In a cigarette machine, the combination of the tilting cutting table, having knives or cutter 78, said cutters carrying knives 82, means for operating the tilting table, with the stationary semi-circular cutting knives 79 provided with stops 79^a and arranged to co-act with knives 78 and 82, as and for the purpose set forth.

32. In a cigarette machine, the combination of the cigarette cutting device, means substantially as shown and described for mutilating the butts, independent chutes leading from the cutting device for receiving said butts and delivering them to receptacles arranged on one or both sides of the machine, and a chute for carrying away the completed cigarette, as set forth.

33. In a cigarette machine, the combination of a tilting table having knives 78, knives 79, means for operating the tilting table, and the butt mutilating device consisting of the knives 82 joined with knives 78 and stops 79^a joined with knives 79, as and for the purposes set forth.

ADOLPH MOONEILS.

Witnesses:

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