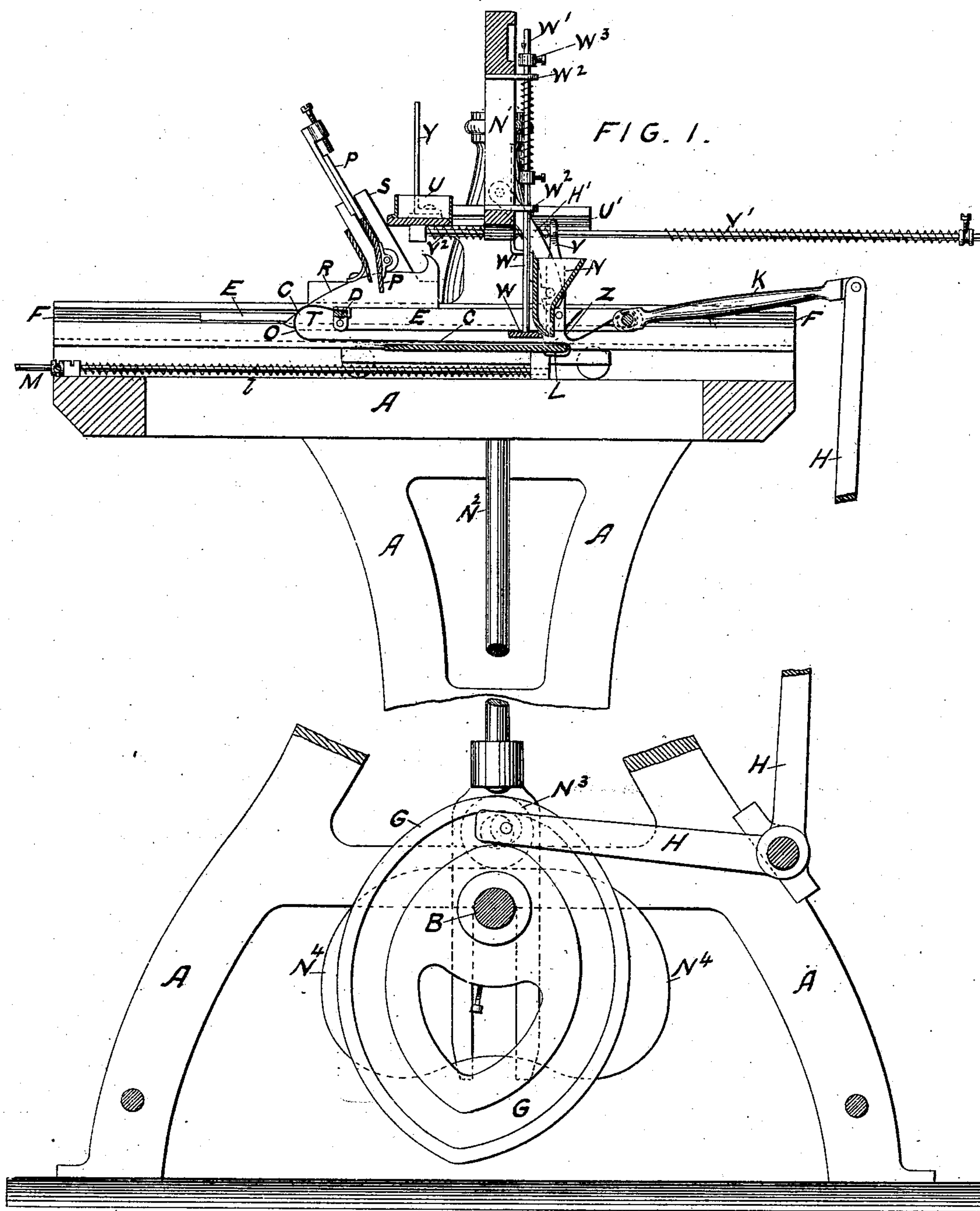


L. J. BEJOTTES.
Cigarette Machine.

No. 235,985.

Patented Dec. 28, 1880.



WITNESSES:

Eugene N. Eliot,

J. Henry Kaiser.

INVENTOR:

L. J. Bejottes.

By Boyd Eliot,

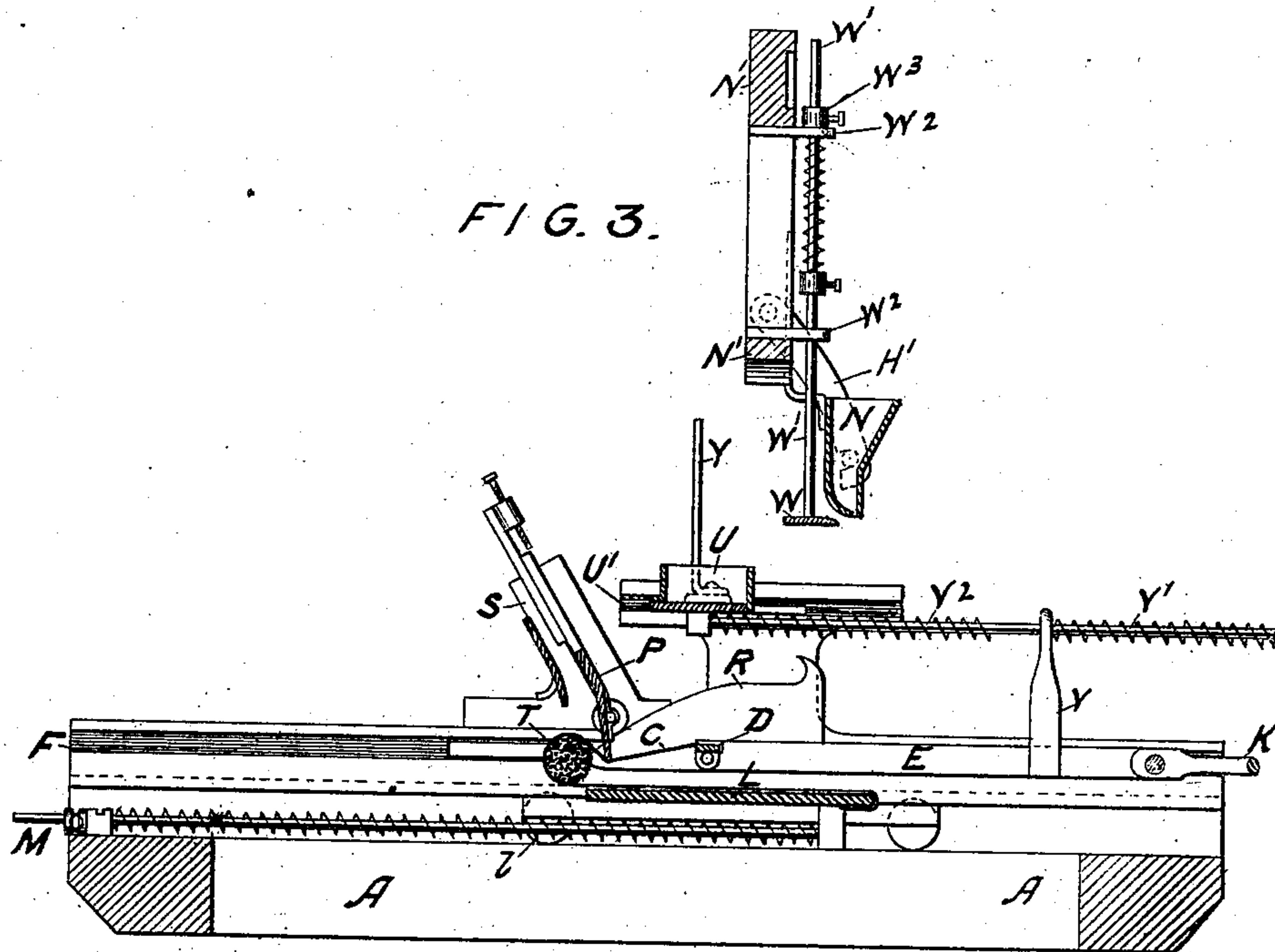
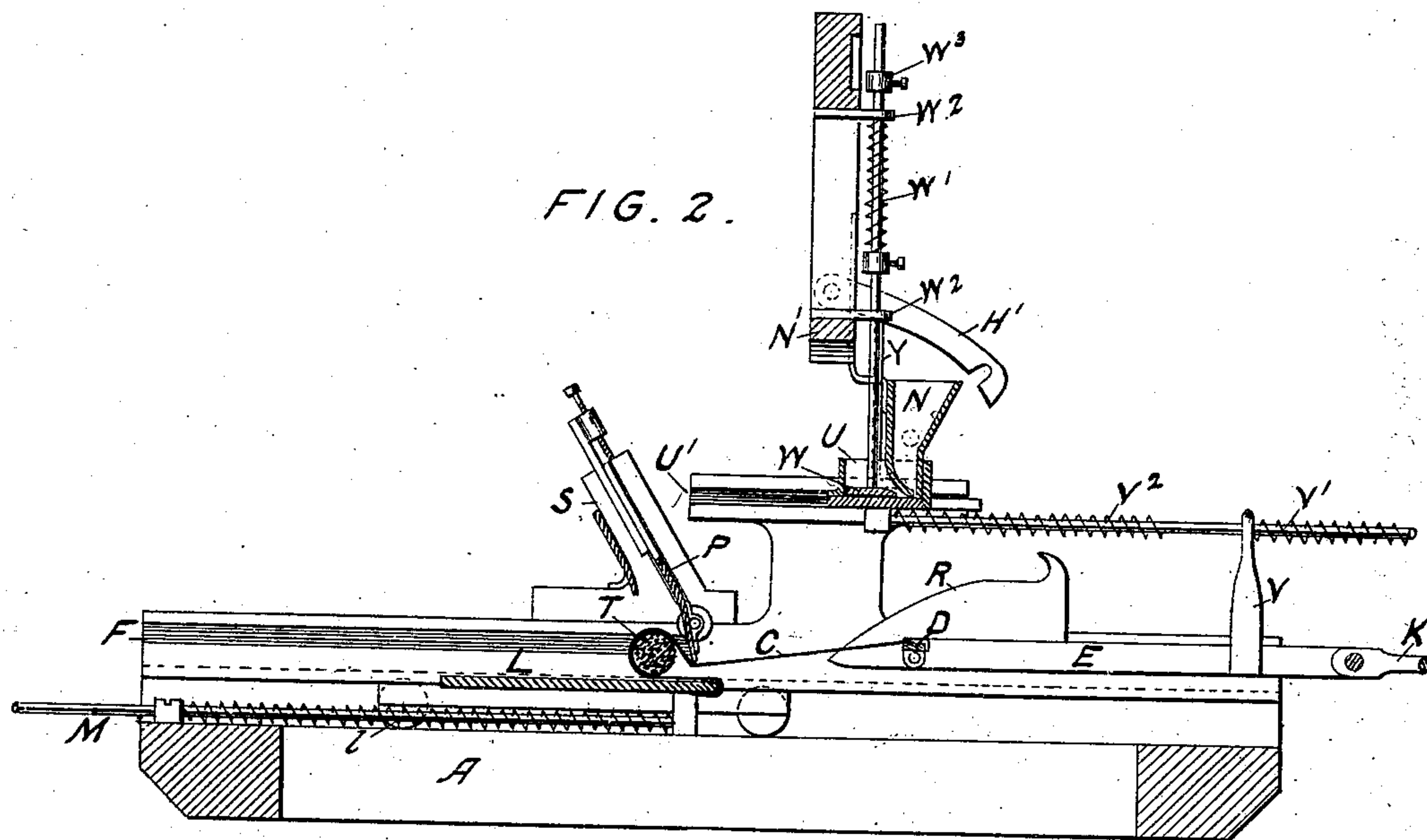
Atty.

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3 Sheets—Sheet 2.

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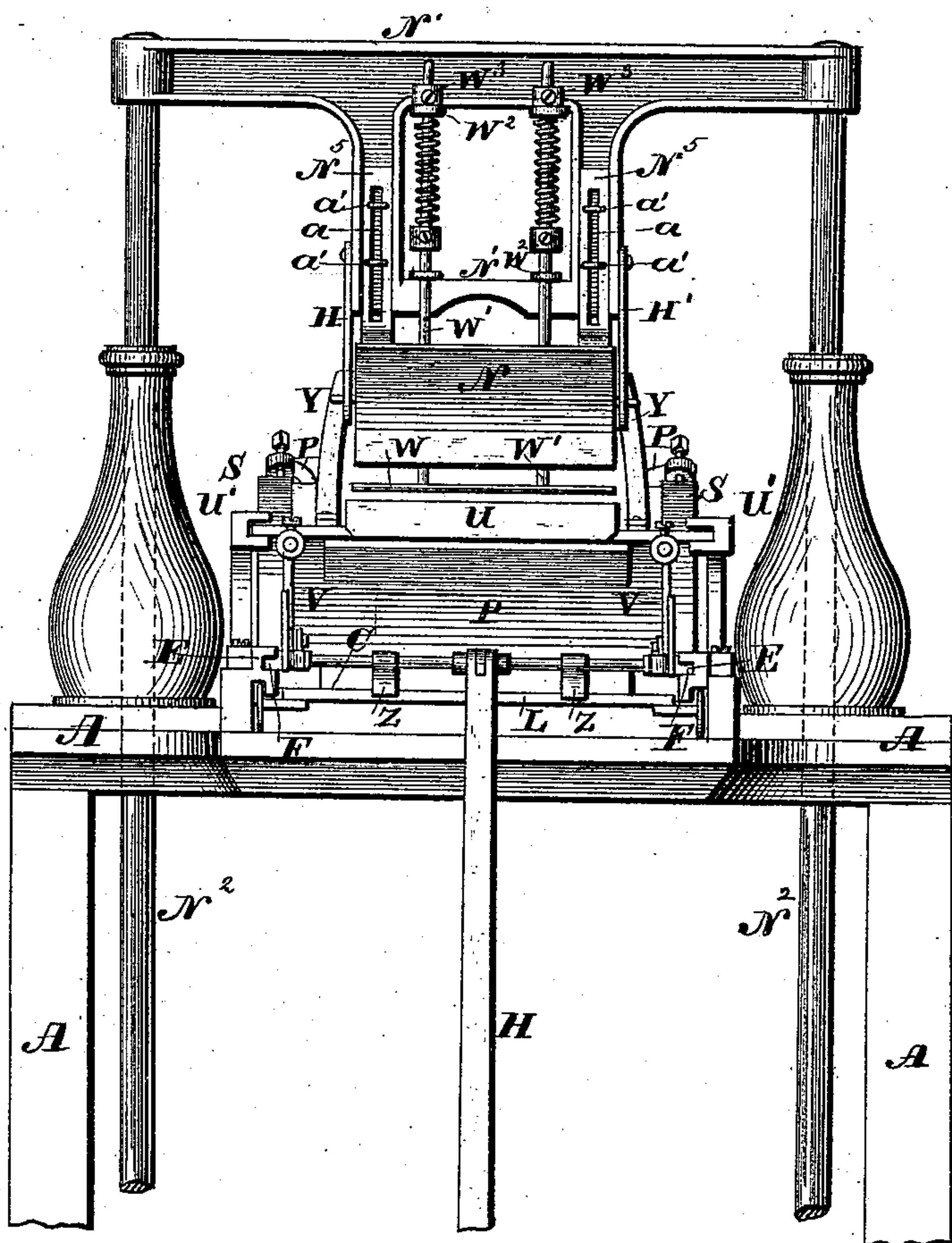
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Fig. 4.



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UNITED STATES PATENT OFFICE.

LEON J. BEJOTTES, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
FERNANDEZ & CALVO, OF SAME PLACE.

CIGARETTE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 235,985, dated December 28, 1880.

Application filed October 27, 1879.

To all whom it may concern:

Be it known that I, LEON J. BEJOTTES, of the city, county, and State of New York, have invented a new and useful Improvement in Cigarette-Machines, of which the following is a specification.

This invention pertains to the making of cigarettes by machinery, the tobacco being fed by hand or otherwise in the required quantity to form one or more at a time, and then the apparatus takes the wrapper, applies the paste, and performs the operation of rolling the cigarette automatically, as will hereinafter appear.

The invention consists, chiefly, in the combination of the pasting mechanism with the rolling devices, whereby the wrappers, being cut to the proper size and placed in a receptacle, are lifted therefrom by the mechanism, paste applied on one edge, and the wrapper then deposited upon the rolling-apron, where it is caught in the rolling operation and rolled around the tobacco and fastened by the paste, as will hereinafter appear.

Figure 1 is a sectional elevation of the machine, showing the cams and driving-shaft below the table. Fig. 2 is also a sectional view, showing the pasting devices in position for applying the paste. Fig. 3 is a similar view, but with the parts in position for beginning the rolling operation; and Fig. 4 is an end elevation of the upper portion of the machine.

At A is the frame for supporting the working parts.

At B is the shaft, to which the power may be applied by belt or treadle or otherwise.

C is the rolling-apron, of any flexible material, as rubber or leather, and it is attached at each end to a sliding carriage, the front end to a transverse bar, as at D, on the slides E, working in grooves in the frame, as at F, and the proper motion is given to these slides and the bar D, and thereby to that end of the apron C, by a grooved cam-wheel, as at G, and a right-angle lever, as at H, and connecting-rod K, attached by cross-link to the ends of the slides E. The other end of the apron C is attached to the front end of the carriage, as at L, which also slides in grooves in the frame in a plane below the first carriage, so that it

can slide underneath it and leave a space between the two equal to the diameter of the cigarette, or nearly so. This carriage serves as a table to support the apron during the rolling operation, and is pressed forward by a spring, as at I, which is supported in working position by a rod, M, one end of which is attached to the under side of the carriage, and when the several parts are in proper position to receive the charge of tobacco this carriage occupies the position shown at Fig. 1, its front end being underneath the paste-box, as at N, the apron C resting on the said carriage or table, and its other end curved up, as at O, to receive the charge behind the check-plate, as at P, which is shown as resting on the inclined lifters R, which are attached to the slides E, and travel with the bar D, that carries that end of the apron. This check-plate slides in grooves in upright supports upon the frame, as at S, and it is provided with friction-rolls to work upon the upper edges of the lifters R to reduce the friction. As the lifters R are withdrawn by the motion of the slides E, the check-plate descends and rests upon the outside of the apron and in front of the roll of tobacco, and as the apron is drawn forward the tobacco is rolled over and over in the fold of the apron, as shown at T. When the rolling operation commences, the check-plate P is down upon the apron in front of the roll of tobacco, (see Fig. 3,) and such check-piece prevents the roll of tobacco from rolling forward, but permits it to roll over and over between the fold of the apron immediately in rear of the check-piece. Hence, by reason of the forcible forward movement of the slide E, drawing forward the front end, D, of the apron, the carriage or table L is automatically drawn rearwardly as the cigarette is being rolled by the drawing action of the apron, until, finally, the said carriage or table is forced rearwardly from beneath the cigarette, and the latter falls downward, not being longer supported.

The wrappers are cut of the proper size to surround the roll of tobacco, and may be of two or more lengths of the ordinary cigarette, which may be cut into the proper lengths after they are filled. A pile of the wrappers thus formed is placed in a box or receiver at

U, which is mounted in grooved guides, as at U', that permit the box to slide to and fro underneath the pasting-box N.

The paste-box N is hopper-shaped, with a slot in its bottom extending the length of the wrapper, to permit the paste to flow down onto the front edge of the wrapper, and said box is attached to a cross-head, as at N', which is moved up and down by vertical rods, as at N², their lower ends having friction-rolls N³, that rest upon cam-wheels at N⁴ upon the main shaft, whereby the box is raised and lowered vertically from the wrapper-box to the apron.

When the paste-box is raised by its cams above the wrapper-box, the uprights at V, on the slides E, come in contact with springs V' on rods which are attached to the bottom of the wrapper-box U as the slide E moves to the right, and thus slide the box U forward until it is directly under the paste-box, as represented in Fig. 2, where it is stopped by projections on its guides coming in contact with the bottom of the box. While in this position the cams on the shaft are so shaped as to permit the paste-box to descend upon the pile of wrappers, and the paste coming in contact with the upper wrapper attaches it to the bottom of the paste-box, so that when this box is again lifted by its cams the wrapper will be lifted with it, and thereby be removed from the others in the box U. While the paste-box is in the wrapper-box the uprights or arms V on the slides E will have reversed their movement and come in contact with another set of springs at V², on the same rods that carry the spring V', and will have compressed them, so that when the paste-box is lifted the wrapper-box will instantly slide back from underneath the paste-box, and thereby permit it to descend, with the wrapper, upon the apron to the position shown at Fig. 1.

It is evident that the wrapper must be stripped from the pasted edge or bottom of the paste-box, or it will be again lifted with it when it rises again for another wrapper. To accomplish this a stripping-plate, as at W, is supported by rods W', sliding in brackets W² upon the cross-head N', and said rods have stops W³ on their upper ends to lift the stripping-plate from the wrapper after it has done its work, and it then travels with the paste-box. Before the stripping-plate is lifted the paste-box is caught by the hooks, as at H', which are attached to the cross-head or the depending arms thereof that support the box, and the same is then lifted up first and held until the wrapper-box is moved forward, when the hooks are disengaged or tripped by two uprights, as at Y, that are attached upon the ends of the wrapper-box, and thus the paste-box is permitted to drop again upon the wrappers to the position shown at Fig. 2, because said paste-box is mounted on slides which move in a vertical direction upon the lifters attached to the cross-head N', and said hooks are the only means for supporting said paste-box during the time that the stripping device

W is holding the wrapper, so that the paste-box may be lifted by said hooks from the top of the wrapper. Another advantage of this stripping-plate is, that when it descends with the paste-box onto the pile of wrappers its surface presses them down flat and holds them in a smooth position, to prevent their tilting under the sharp edge of the paste-box.

The limited vertical movement of the paste-box on the cross-head to permit the paste-box to drop upon the wrappers in the box U, or to be elevated therefrom, is provided for by suspending the paste-box on the lower ends of two rods, N⁵ N⁵, which latter are slotted vertically and are movably connected with the cross-head N', being arranged to move in guide-ways therein and confined in place by bolts or pins a, passing through the said slots into the cross-head, as best shown in Fig. 4.

When the hooks H' are lifting the paste-box the parts are in the position shown at Fig. 3, and just as the wrapper-box is beginning to be moved forward underneath the paste-box and its stripping-plate.

The hooks H' are represented as detached from the paste-box in Fig. 2, and held up by the uprights, as at Y.

At Z in Fig. 1 is represented a curved guide (or more may be used,) which is attached to the slides E, or to the cross-link that extends between them, in such a manner that when the apron is reversed it will serve to press the apron back underneath the paste-box and hold it flat to receive the wrapper. The fingers are not intended to run underneath the paste-box or over the top of the apron, but, as before stated, are merely to check the front edge of the apron and prevent it from passing too far over the edge of the table when the machine is running rapidly.

If more than one length of wrapper is used, they may be cut into the proper lengths afterward by hand or otherwise.

Having thus described my invention, I claim—

1. The combination of the rolling-apron and check-plate with a wrapper-box and pasting device, substantially as described, and for the purposes set forth.

2. The combination of the paste-box and stripping-plate with the apron and reciprocating table, as described, and for the purposes set forth.

3. The combination of the rolling-apron with the paste-box, the stripping-plate, and the wrapper-box, substantially as and for the purposes set forth.

4. The combination of the paste-box, stripping-plate, and hooks H' with the cross-head and cams on the main shaft, as and for the purposes set forth.

5. The combination, with the rolling-apron, of the slides E and finger or fingers Z, substantially as and for the purposes set forth.

Attest: LEON J. BEJOTTES.

J. WM. RIPLEY,
EUGENE N. ELIOT.