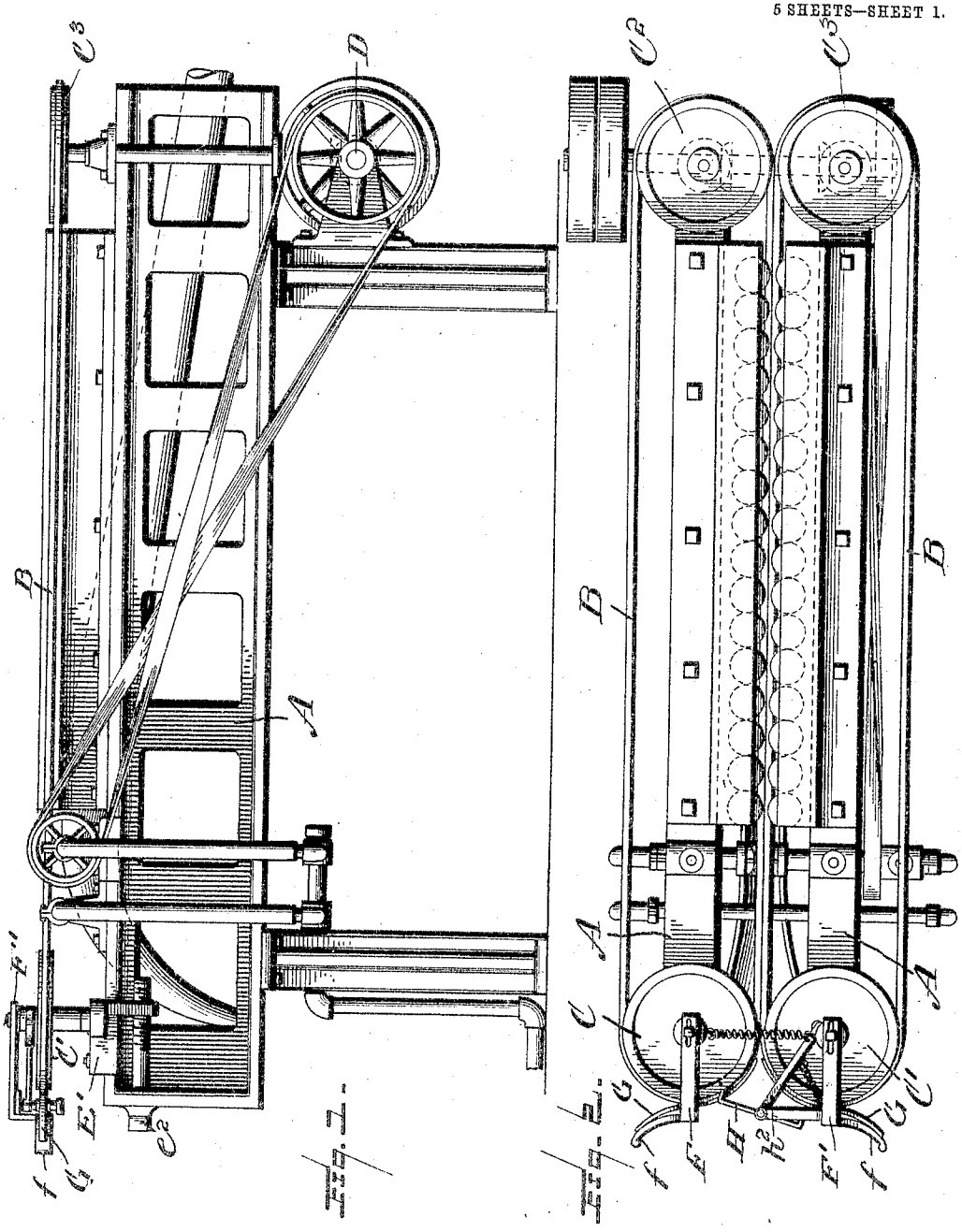
No. 779,980. PATENTED JAN. 10, 1905.

L. P. WHITAKER.

TOBACCO STEMMING MACHINE.

APPLICATION FILED APR. 11, 1903.

5 SHEETS—SHEET 1.



WITNESSES:

W. F. Doyle

J. K. Moore

INVENTOR

L. P. Whitaker

BY Whitaker & Prescott

His Attorneys

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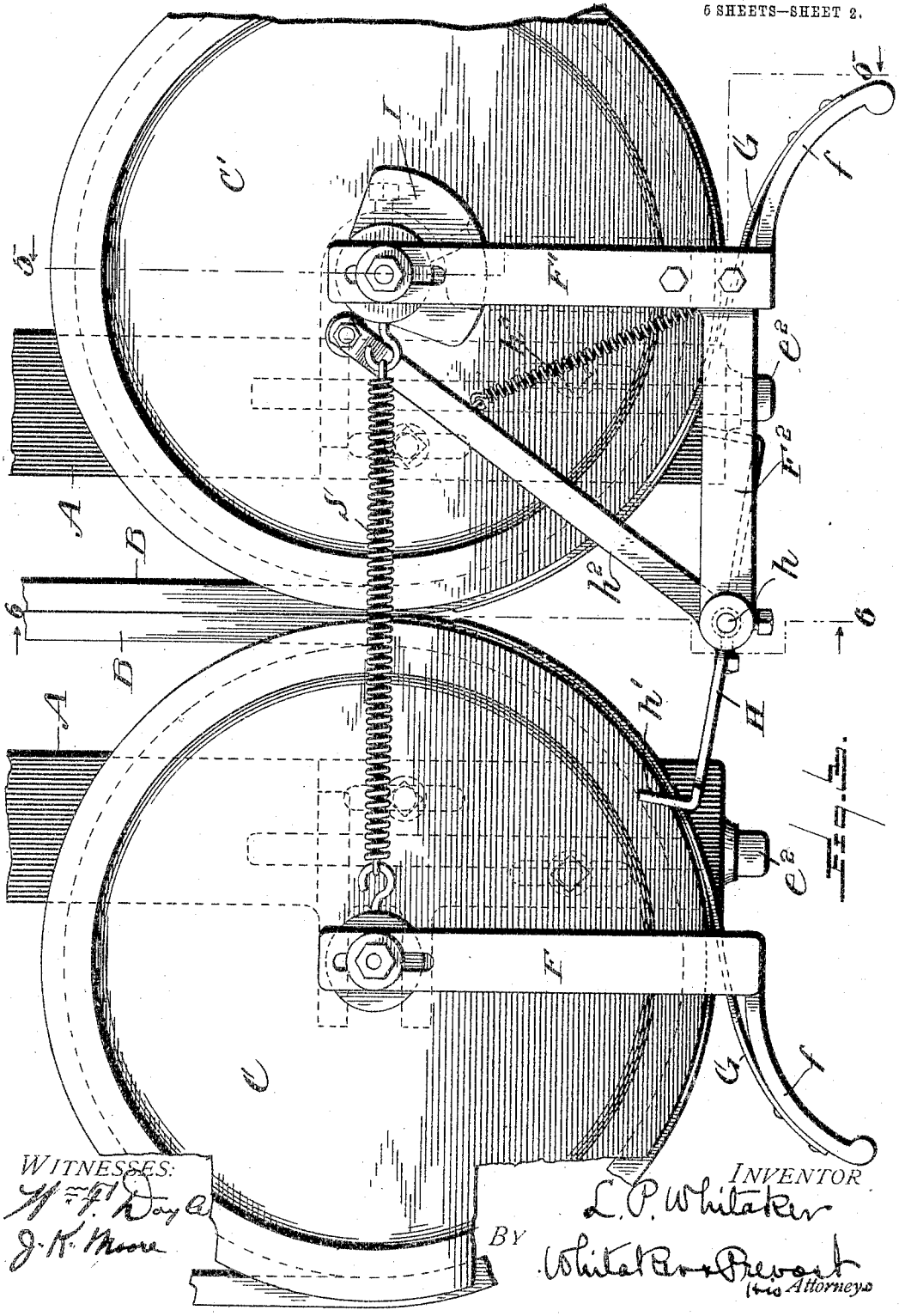


Fig. 2.

WITNESSES:

J. K. Moore

INVENTOR

L. P. Whitaker

BY Whitaker Brewer & Brewer

Attorneys

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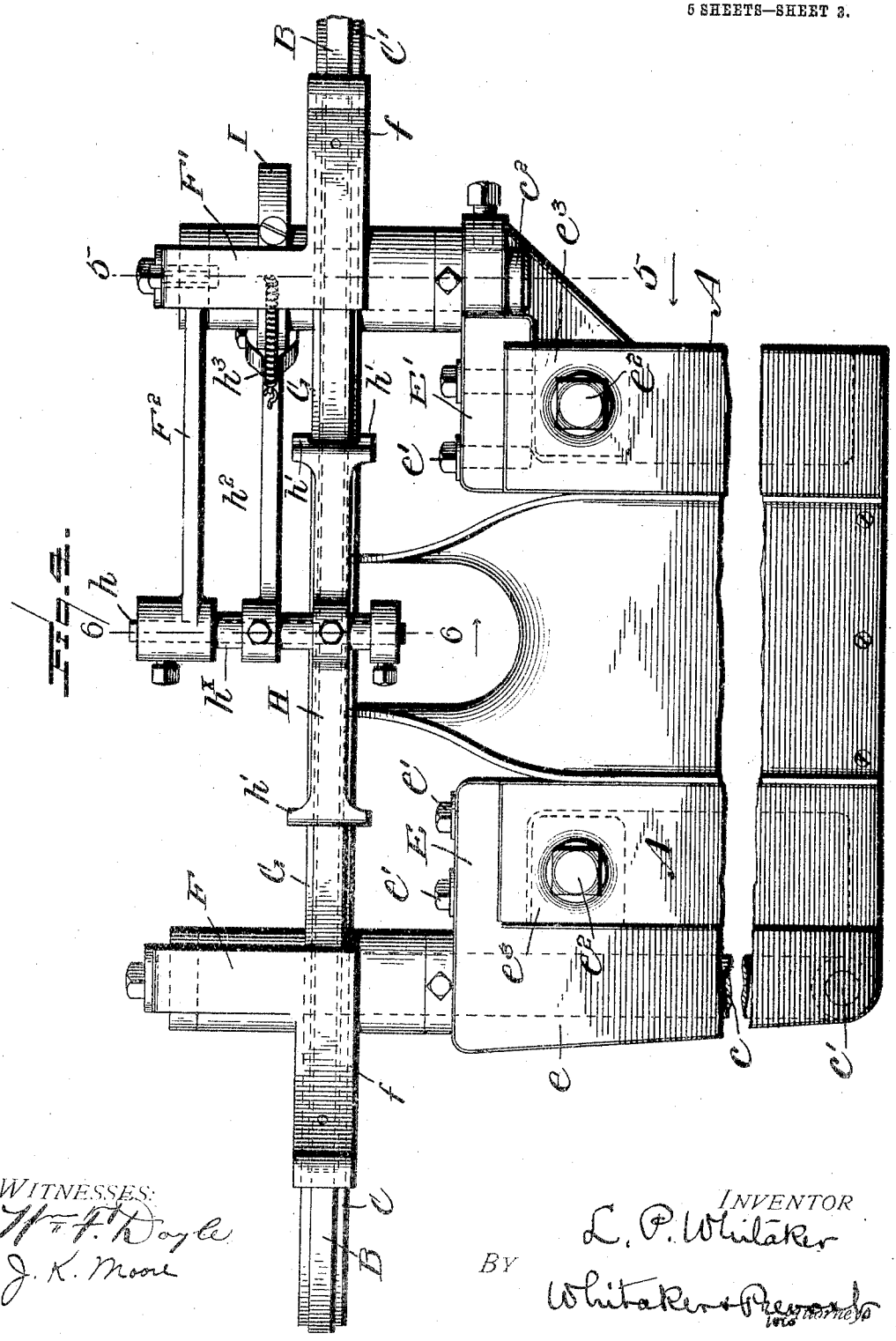


Fig. 3.

WITNESSES:

W. F. Doyle

J. K. Moore

INVENTOR

L. P. Whitaker

BY

Whitaker & Prescott

Attorneys

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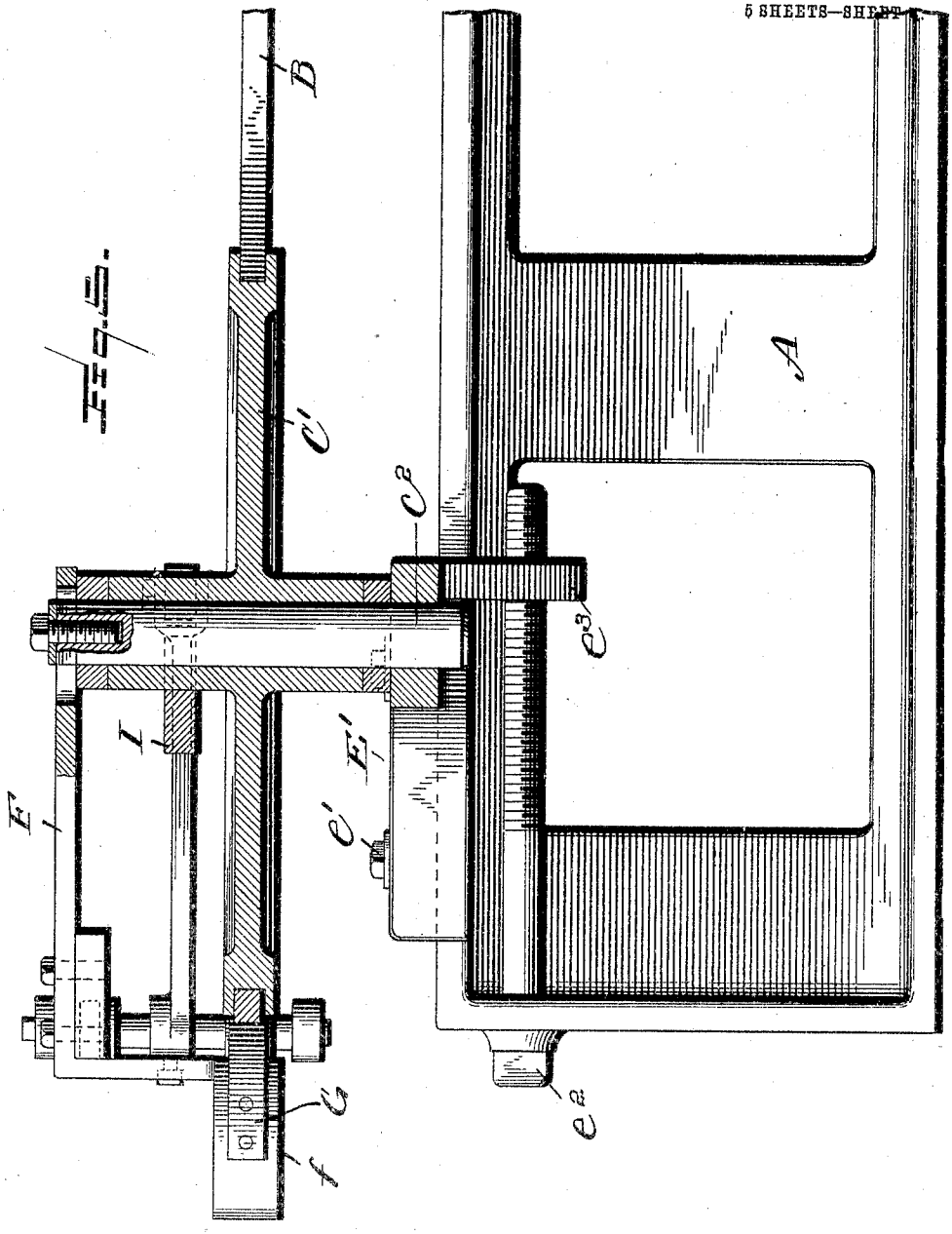


Fig. 5.

WITNESSES:

Wm. F. Doyle

J. K. Moore

INVENTOR

L. P. Whitaker

BY Whitaker & Prevost

his Attorneys

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5 SHEETS—SHEET 5.

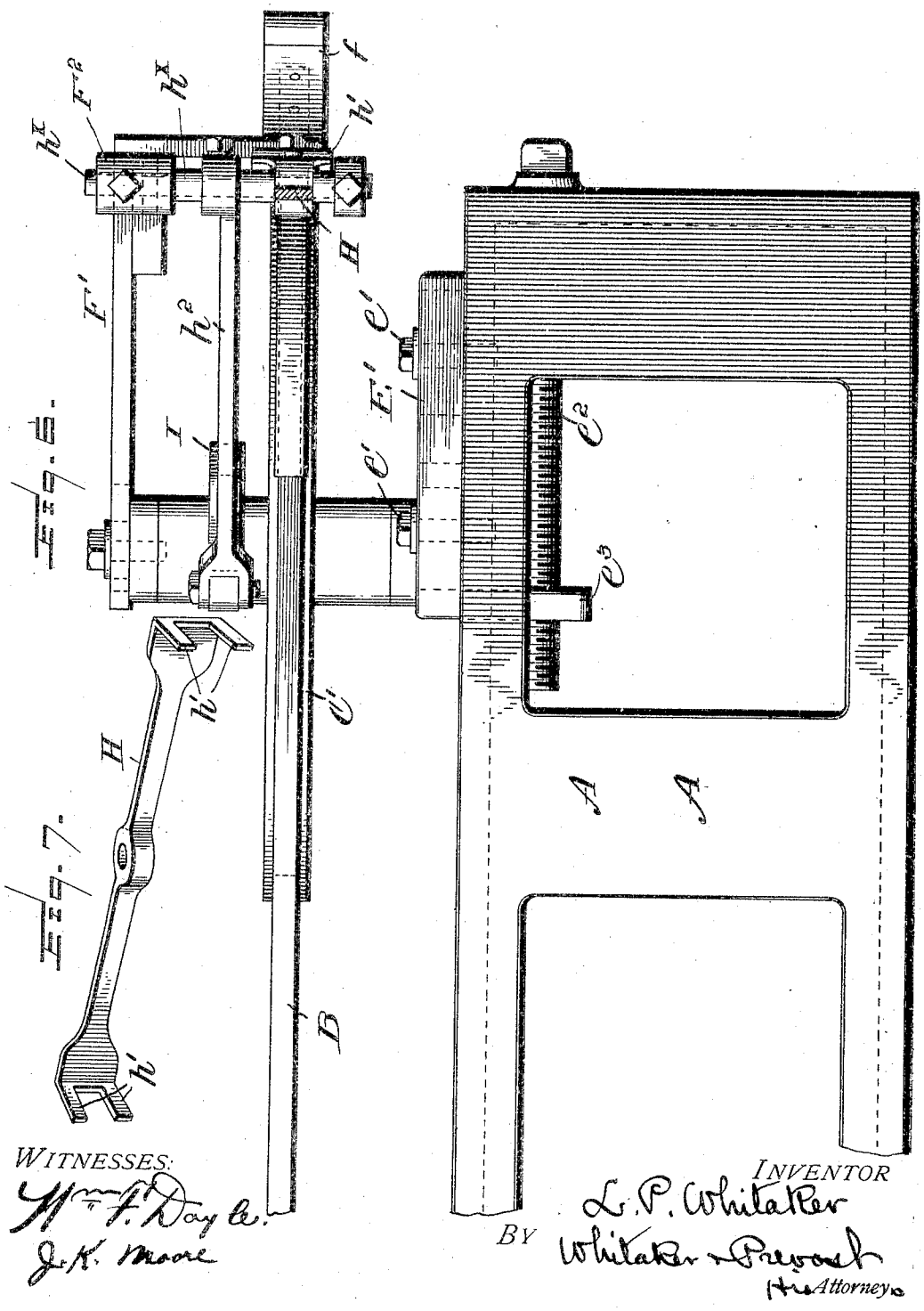


Fig. 5.

Fig. 7.

WITNESSES:

W. F. Dayle.

J. K. Moore

INVENTOR

L. P. Whitaker

BY Whitaker & Prevost

Its Attorneys

PHOTO LITHOGRAPHED BY JACKLITZ, WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 779,980. Patented January 10, 1905.

UNITED STATES PATENT OFFICE.

LOUIS P. WHITAKER, OF WASHINGTON, DISTRICT OF COLUMBIA.

TOBACCO-STEMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 779,980, dated January 10, 1905.

Application filed April 11, 1903. Serial No. 152,193.

To all whom it may concern:

Be it known that I, LOUIS P. WHITAKER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Tobacco-Stemming 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 appertains to make and use the same.

This invention is an improvement on the tobacco-stemming machine described and illustrated in my former patent, dated February 5, 1901, and given No. 667,354; and it consists in the novel features hereinafter described, reference being had to the accompanying drawings, which illustrate one form in which I have contemplated embodying my invention, and said invention is fully disclosed in the following description and claims.

In the drawings, Figure 1 represents a side view of a machine embodying my invention. Fig. 2 represents a top plan view of the same. Fig. 3 is an enlarged top plan view of the duplex feed apparatus. Fig. 4 is a front view of the same. Fig. 5 is a sectional view on line 5 5 of Fig. 4. Fig. 6 is a section on line 6 6, Fig. 4, looking to the right. Fig. 7 is a detail view of the oscillating detent.

In my former patent the feeding device for the tobacco-leaves consists of two belts carried by four grooved wheels and having adjacent parallel portions pressed together by a stationary and a yielding series of rollers, so as to cause the belts to grip and carry with them the butt portions of the stems of the leaves, which are presented to them where the belts meet as they pass around the front carrying-wheels.

My present invention has for its object to provide means whereby two operators can feed leaves to said belts simultaneously and without interference, so that the leaves fed by the two feeders will not meet and be carried through together, but will enter the belts at regular intervals.

I will describe only so much of the machine as is necessary for a clear understanding of my present invention.

In the drawings, A A represent two side frames forming the main frame of the machine and supporting the working parts, said frames being supported upon suitable legs, as shown.

B B represent the two feed-belts, which are carried by the front idle wheels C C′ and rear driving-wheels C^2 C^3, the latter being driven by bevel-gearing from the driving-shaft D, as indicated in dotted lines, Fig. 2. The front wheel C is mounted loosely on the upper end of a stationary spindle c, the lower end of which is pivoted at c' in the lower end of a bracket e, depending from a sliding plate E, which rests upon the top of the side frame A and is held against lateral movement by screws e' passing through longitudinal slots in the plate. The whole plate carrying the spindle c and wheel C may be moved longitudinally by means of an adjusting-screw e^2, which engages a lug e^3 on the plate E, extending beneath the top flange of the side frame, as shown in dotted lines in Fig. 4. The front wheel C′ is mounted on a stationary stud or spindle c^2, secured to a plate E′, secured to the top of the other side frame by guide-screws e' e', and is adjustable by means of a screw e^2, engaging a lug e^3, said parts being like the corresponding parts previously described. (See Fig. 5.) The spindle c and stud c^2 are connected by a spring S, which normally holds the wheels, together with the two belts B B, in contact, but permits the left-hand belt and wheel C to yield laterally when a stem is fed into and between the belts. To the top of each of the studs or spindles c and c^2 is secured an arm F F′, which extends horizontally toward the front of the machine as far as the periphery of the wheel and then is bent downwardly and has its lower end provided with an outwardly-curved arm f, (see Fig. 3,) which is in the plane of the wheel and forms a V-shaped receiving-aperture in connection with the belt as it lies in the groove of the wheel. To each of the arms f is se-

cured a flat spring G of substantially the width of the belts, which is bent in a compound curve and follows the curvature of the wheel to a point adjacent to the meeting-point of the two opposing belts, as will be seen in Fig. 3. It will now be seen that if at either side of the machine a leaf is fed into the V-shaped space between the wheel and the spring G the friction of the belt will cause it to be carried around with the belt and wheel to the center, where just as it slips out from under the spring it is caught between the two opposing belts, and so carried through the machine. I also provide means for regulating the carrying of leaves into the bite of the two belts, so that leaves will be fed first from one side and then the other at regulated intervals and so that it is impossible for two leaves to be carried together into the bite of the belts, while the feeders can insert leaves into the V-shaped receiving-recess at any and all times as rapidly as they are able to do so and without waiting in any way for the action of any part of the mechanism. To this end I provide a movable detent (in this case an oscillating detent) constructed and arranged to at all times close either one or the other of the passages between the wheels and springs and a cam or other device to shift the detent from one passage to the other.

H represents the oscillating detent, (shown in detail in Fig. 7,) which is mounted on a vertical rocking sleeve h on a stud $h^{\times}$, carried by an arm F^2, secured to the right-hand arm F'. The detent is provided with a central aperture to receive the sleeve h, and at each end it has two fingers h' h', adapted to straddle the wheels and to hold a leaf between the wheel and spring if it has been fed prematurely until the preceding leaf fed from the other side has gone forward a certain distance in the belts B B.

h^2 represents an operating-arm secured to the rocking sleeve h and provided with a friction-roll at its outer end engaging a cam I, secured to the wheel C', (in this instance to the hub of the wheel,) and as this cam rotates it will effect the oscillation of the rocking sleeve h and the detent H, and thus regulate the passage of the leaves to the belts. A spring h^3 holds the arm h^2 in engagement with the cam I.

It will be noted that either feeder can put a leaf into the machine at any time and it will be instantly caught between the belt and the spring G and carried toward the center. If it is ahead of its regular time, the passage will be intercepted by the fingers h', which will arrest the leaf and hold it until the proper moment, when the detent will shift and release the leaf and instantly close the other passage.

The arms F F' are slotted where they are bolted or screwed to the studs or spindles c c^2 to permit of longitudinal adjustment to secure the proper relation of the springs to the wheels, so as to give the required amount of friction to carry the leaves smoothly through the feeding-passages.

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a pair of feeding-belts having a single point for receiving the materials fed, of devices coöperating with said belts and providing two feeding-points, and means for insuring the alternate forwarding of the material received at the two feeding-points, substantially as described.

2. The combination with a pair of feeding-belts having a single feeding-point, devices coöperating with said belts and forming a plurality of feeding-channels leading to said feeding-point, and devices opening and closing said channels in regular alternation, substantially as described.

3. The combination with a pair of gripping-belts, and supporting-wheels therefor, of a pair of devices lying parallel with portions of said wheels and forming feeding-channels, and means for alternately closing said channels, substantially as described.

4. The combination with a pair of gripping-belts, and supporting-wheels therefor, of a pair of devices lying parallel with portions of said wheels and forming feeding-channels, and a movable detent for alternately closing said channels, substantially as described.

5. The combination with a pair of gripping-belts, and supporting-wheels therefor, of a pair of devices lying parallel with portions of said wheels and forming feeding-channels, and an oscillating detent having portions adapted to close said channels alternately, substantially as described.

6. The combination with a pair of gripping-belts, and supporting-wheels therefor, of a pair of devices lying parallel with portions of said wheels and forming feeding-channels and a movable detent provided with bifurcated portions for embracing said belts and closing said channels alternately, substantially as described.

7. The combination with a pair of gripping-belts, and supporting-wheels therefor, of a pair of devices lying parallel with portions of said wheels and forming feeding-channels, a movable detent provided with devices adapted to be projected alternately across said channels, and a cam carried by one of said wheels for operating said detent, substantially as described.

8. The combination with a pair of gripping-belts, and supporting-wheels therefor, of a pair of springs lying parallel to certain por-

tions of two of said wheels and forming two separate feeding-channels leading to a point between said wheels, a movable detent provided with devices for closing said channels and operating devices for said detent for causing it to close said channels alternately, substantially as described.

9. The combination with a pair of feeding-belts having converging portions leading to a single feeding-point, yielding guides parallel to the converging portions of said belts having smooth surfaces opposing said belts, and forming two feeding-channels leading to said feeding-point, substantially as described.

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

LOUIS P. WHITAKER.

Witnesses:
J. K. MOORE,
GEORGE M. BOND.