

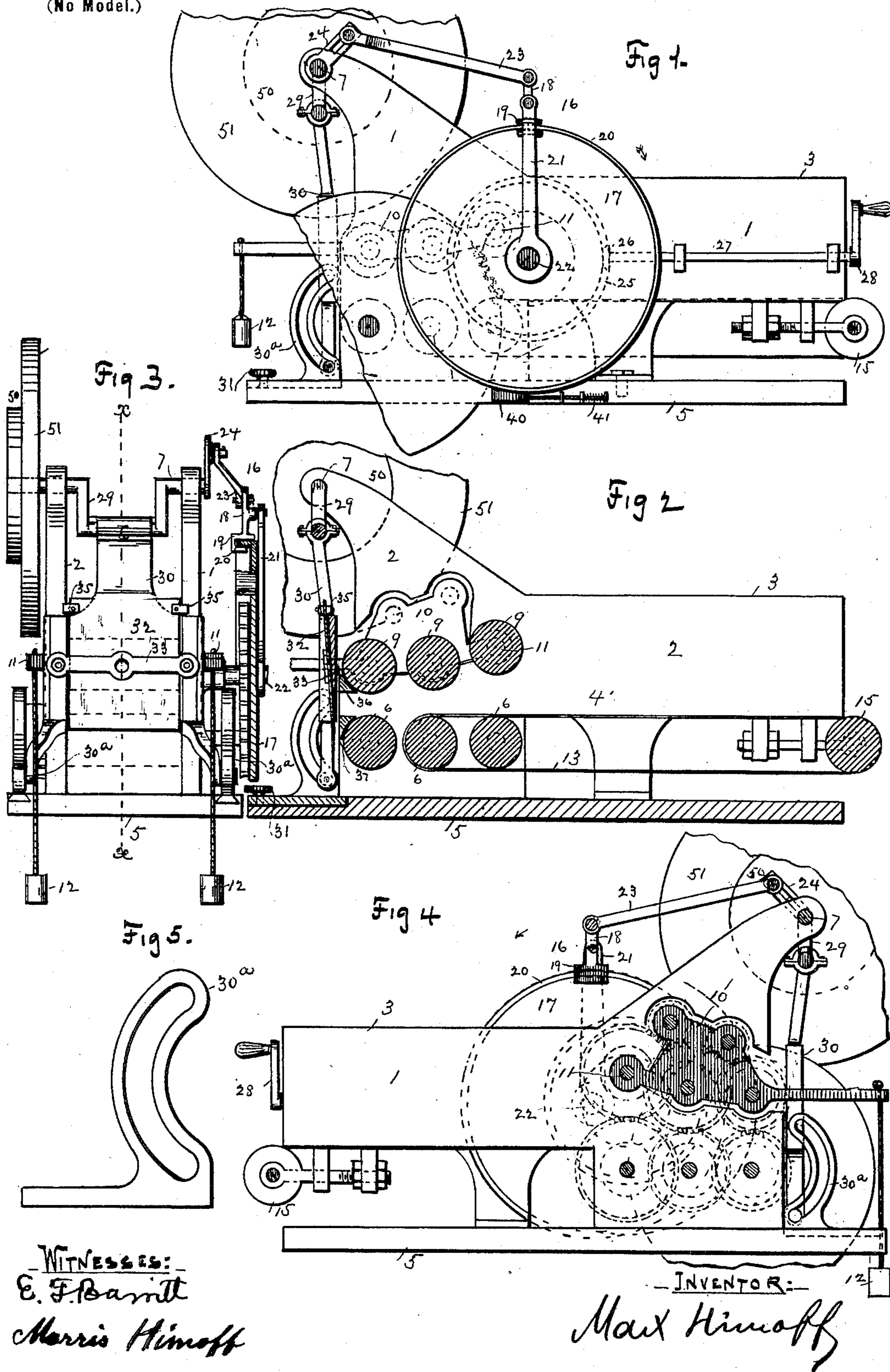
No. 707,778.

Patented Aug. 26, 1902.

M. HIMOFF.  
TOBACCO CUTTING MACHINE.

(Application filed Nov. 20, 1899.)

(No Model.)



# UNITED STATES PATENT OFFICE.

MAX HIMOFF, OF NEW YORK, N. Y.

## TOBACCO-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 707,778, dated August 26, 1902.

Application filed November 20, 1899. Serial No. 737,580. (No model.)

*To all whom it may concern:*

Be it known that I, MAX HIMOFF, a citizen of the United States, and a resident of New York city, borough of Manhattan, State of New York, have invented certain new and useful Improvements in Tobacco-Cutting Machines, of which the following is a specification.

My invention relates to improvements in tobacco-cutting machines, and has for its object to simplify and improve the construction of said machines to the end that the tobacco may be readily cut to the desired thickness and whereby the knife will be free to return from its cutting stroke without interfering with the proper feed of the tobacco.

The invention consists in the novel details of improvement that will be more fully hereinafter set forth, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a side elevation, partly broken, of a tobacco-cutting machine embodying my invention. Fig. 2 is a longitudinal section on the plane of the line  $xx$  in Fig. 3. Fig. 3 is a front elevation of the machine. Fig. 4 is a side elevation of the machine, partly broken, looking from the left in Fig. 3; and Fig. 5 is a detail of one of the guides for the knife-holder.

Similar numerals of reference indicate corresponding parts in the several views.

In the accompanying drawings, 1 2 indicate side portions of the frame of the machine, which are provided with rearward extensions 3, all together forming a trough 4 to hold the tobacco to be cut. These parts may be suitably secured to the bed-plate 5, and the sides also serve as supports for lower feeding-rollers 6 as well as for a crank-shaft 7, which is the main driving-shaft of the machine. Above the rollers 6 is another series of rollers 9, journaled in an independent frame 10, fulcrumed on a shaft 11. This frame is adapted to rise and fall under the influence of tobacco passing beneath the rollers 9, and said frame is indicated as held down by weights 12, which serve to give the rollers 9 the required pressure upon the tobacco moving beneath them and, further-

more, permit said rollers to yield under varying thickness of tobacco. I have shown an endless belt 13 passing over one of the rollers 6 and a roller 15, and the roller 15 is adjustably supported, as shown, to permit changing the tension of the apron. The apron is given an intermittent movement by means of a gripping device 16, acting upon the flange of a wheel 17, mounted upon a shaft 22. The gripping device comprises an arm 18, pivoted to the arm 21, that is fulcrumed on shaft 22, the arm 18 being provided with a jaw that grips or grasps the flange 20 of wheel 17, and the arm 18 is pivotally connected to the rod 23, that is adjustably connected to the crank 24 of shaft 7. Suitable gearing connects the rollers 6 and 9 with the shaft 22, so that as crank 24 turns the arms 21 and 18 and the gripping device will cause intermittent rotary motion to be transmitted through wheel 17 and the gearing to the rollers and the apron for feeding the tobacco through the trough 4 to the mouth thereof in position to be cut. The gripping device is so arranged that when arm 21 moves in the direction of the arrow in Fig. 4 the rim of the wheel 17 will be gripped and the wheel rotated in the same direction, and when the crank moves on the other part of the circle the gripping device will be drawn back without rotating wheel 17. By means of gear-teeth 25, connected with wheel 17, meshing with a gear 26 on a shaft 27, provided with a crank-handle 28, I am enabled to turn wheel 17 to feed the tobacco independently of the crank 24 and the gripping device 16, so as to adjust the tobacco in the trough independent of the movement of the knife. The crank 29 of shaft 7 is connected with a knife-holder 30, the lower end of which is guided in cam-like grooves or slots in guides 30<sup>a</sup>, suitably secured to the base 5. The guides 30<sup>a</sup> are adjustably attached to the base 5, so as to move toward and from the trough, screws or the like 31 serving to hold said guides in the adjusted position. The knife 32 may be secured to the holder 30 by any suitable means. I have shown the knife adapted to be held in place by bar or plate 33, adjustably fastened to the holder by screws, and I may use regulating-pieces 35, secured to the knife to assist

in adjusting the position of the knife in the holder. The centrally-disposed hole in the bar 33 may receive a screw to press against the knife. The frames 10 are shown provided with a mouthpiece 36 and the side frames 2 with a rest-piece 37, adjacent to the front roller 6, the parts 36 and 37 serving to form a mouth for trough 4, through which the tobacco may be fed from the rollers 6 and 9, as well as a stationary knife or the like to coöperate with the knife 32, the front edges of the parts 36 and 37 serving, with a knife, to form cutting means for shaving the tobacco. The adjustable guides 30<sup>a</sup> enable the knife to be adjusted more or less toward the parts 36 37 to regulate the cutting action of the knife against the faces of said parts. The arrangement and relative positions of the crank 29, the knife-holder, and the guides 30<sup>a</sup> are such that as the crank 29 rotates in the direction of the arrow in Fig. 4 the knife will be caused to descend in a substantially straight line or vertical plane across the face of the mouth of trough 4, which movement of the knife is effected because of the shape and relation of the slots in the guides 30<sup>a</sup>, whereby as the upper end of the knife-holder moves on one arc its lower end will move on a reverse arc. As the crank 29 rises the upper end of the holder will move outwardly or away from the mouth of the trough and the lower end will likewise move away from the mouth of the trough, and thus the knife will be carried away free from the mouth of the trough, thereby enabling the tobacco to be fed from the mouth of the trough without interference from the knife.

To prevent the wheel 17 from reversing its proper direction of rotation, I have provided a brake 40, acted upon by a spring 41, as shown in Fig. 1. 50 and 51, respectively, are driving and fly wheels on shaft 7, although

any suitable means may be provided for rotating said shaft.

Having now described my invention, what I claim is—

1. The combination of a frame provided with means for containing material to be cut, and a stationary knife, with a crank-shaft, a knife-holder connected therewith, and guides having curved ways for guiding the lower end of the holder, the concave sides of said curved ways facing the stationary knife, substantially as described.

2. The combination of a frame provided with a feeding-trough having a mouth and a stationary knife, with a crank, a knife-holder connected therewith, a pair of adjustable guides provided with curved ways to which the lower end of the holder is connected, the concavity of said curved ways facing toward the mouth of the trough, substantially as described.

3. The combination of a main frame, a movable frame supported by the main frame, a roller carried by the movable frame, a mouthpiece 36 carried by the movable frame adjacent to said roller, a mouthpiece beneath the same carried by the main frame, a roller adjacent to said mouthpiece and opposed to the other roller, a knife-holder, means for guiding and reciprocating the same, and means for depressing the movable roller and the adjacent mouthpiece and regulating the pressure between the rollers, substantially as described.

Signed at New York, in the county of New York and State of New York, this 16th day of September, A. D. 1899.

MAX HIMOFF.

Witnesses:

E. F. BARRITT,  
MORRIS HIMOFF.