

S. PALMOWSKY.
CIGARETTE TIPPING MACHINE.
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936,026.

Patented Oct. 5, 1909.

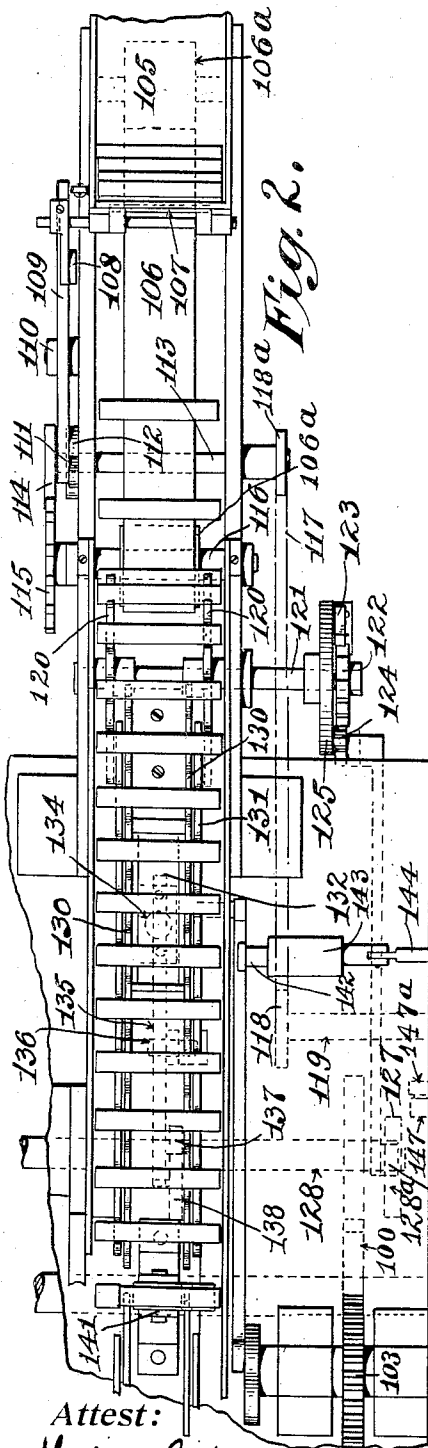


Fig. 2.

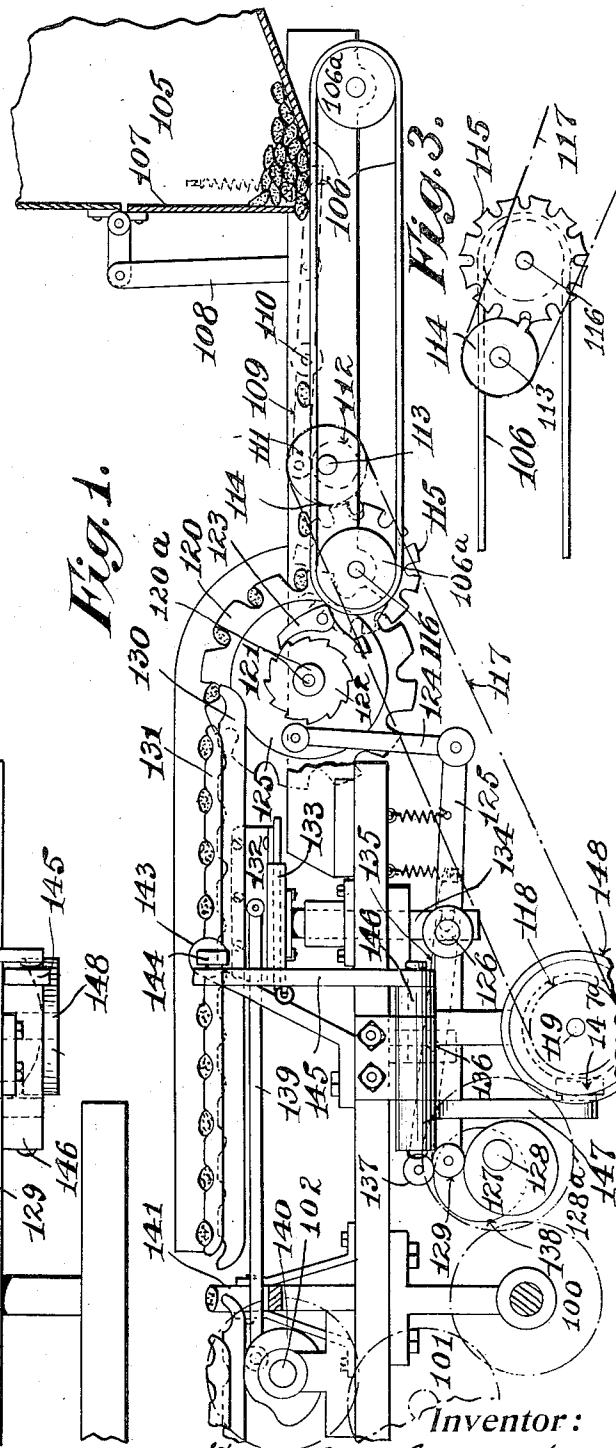


Fig. 1.

Fig. 3.

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UNITED STATES PATENT OFFICE.

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CIGARETTE-TIPPING MACHINE.

936,026.

Specification of Letters Patent.

Patented Oct. 5, 1909.

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To all whom it may concern:

Be it known that I, STANISLAUS PALMOWSKY, a subject of the Czar of Russia, residing in the borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Cigarette-Tipping Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in cigarette tipping machines and has particular reference to the feeding mechanism for conveying formed cigarettes to the folding and tipping attachment of the machine.

Referring to the accompanying drawings Figure 1 is a side elevation partly in section showing a feeding device illustrating one form of my invention and Fig. 2 is a plan view of the same. Fig. 3 is a side elevation of the timing mechanism for the feed belt.

105 is the hopper or other suitable container from which the cigarettes are supplied and is provided with a hinged door 107 operated by levers 108 and 109, the latter of which is pivoted at 110 and provided with roller 111 operating upon cam 112, the other end of the lever being provided with suitable resilient means so that upon each revolution of the cam 112 the door 107 is opened sufficiently to permit one cigarette at a time to pass beneath the same. The cam 112 is mounted upon the shaft 113 carrying sprocket 118^a connected with sprocket 118 mounted upon shaft 119 by the chain 117. The cigarettes from the hopper 105 deposit upon the endless belt 106 carried upon the pulleys 106^a, the same being operated from the shaft 116 through the time sprocket 115 operated by the time gear 114 upon the shaft 113. From the feed belt 106 each cigarette in its turn is received upon a pair of tooth drums 120 mounted upon the shaft 121 and operated by the ratchet 122 and pawl 123. The crank 124 is pivoted to the disk 125 which carries the pawl 123, which said disk is also mounted upon the shaft 121. The mounting of said drums 120 and the ratchet 122 comprises the sleeve 120^a to which they are fastened, so that as the crank 124 revolves the disk 125, the pawl 123 carried thereby engages the ratchet 122 upon the sleeve 120^a carrying the drums 120 and revolves the same leftwardly carrying each cigarette as it is placed upon said drums from the belt 106 to the conveying rails 130

provided with recesses to receive the cigarettes. The crank 124 is pivoted to the crank 125 which oscillates upon bearing 126, which action is imparted by cam 127 operating against the roller bearing 129 mounted at the opposite extremity of the crank 125, said cam 127 being mounted upon the shaft 128 provided with gear 128^a meshing with the driving gears 100 and 101.

The conveying rails 130 are mounted in a vertically reciprocating and horizontally oscillating bearing which allows the jaws to fall and advance beneath the cigarette at the top of the drums 120 and lift the same upon the table 131. The conveying rails 130 are mounted in the slide 132 seated in the bearing 133 carried by the vertically reciprocating shaft 134 connected to the lever 135 pivoted at 136 and provided with roller 137 coacting with the cam 138 on the shaft 128, so that upon each revolution of the cam 138 the conveying rails 130 rise and fall. The horizontal movement is accomplished by the lever 139 pivoted to the slide member 132 at one end and at the other end pivoted to the cam disk 140 mounted upon the shaft 102 carrying gear 103 operated from gear 101. The conveying rails 130 and the table 131 are provided with suitable recesses or grooves into which the cigarettes are seated and the same are suitably spaced, so that the elliptical movement of the conveying rails 130 relative to the table 131, advances the cigarettes along the latter step by step from one groove to the other until each cigarette is advanced to the stationary platform or table 141 upon which it is tipped.

142 is a ram or plunger operated in the slide bearing 143 by the rod 144 pivotally connected to the lever 145 operated in the bearing 146 and connected to the lever 147 contacting by its roller 147^a with the cam 148.

Of course it will be understood that suitable springs may be attached to levers such as 125 and 135 for keeping the rollers upon the face of the cams operating same, and various modifications may be made without departing from the spirit of the invention.

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

1. In a cigarette tipping machine, a hopper containing the cigarettes, a conveyer upon which said cigarettes are deposited, a toothed drum to receive said cigarettes from said conveyer and conveying rails to trans-

fer said cigarettes from said drum into said machine.

2. In a cigarette tipping machine, a hopper containing cigarettes, a conveyer upon which said cigarettes are deposited, a toothed drum to receive said cigarettes from said conveyer, a second toothed drum to receive said cigarettes from said first mentioned toothed drum and conveying rails to transfer said cigarettes from said second toothed drum into said machine.

3. In a cigarette tipping machine, a hopper containing cigarettes, a conveyer upon

which said cigarettes are deposited, a toothed drum to receive said cigarettes from said conveyer and conveying rails to transfer said cigarettes from said drum into said machine and a door upon said hopper to regulate the feed of said cigarettes.

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

STANISLAUS PALMOWSKY.

Witnesses:

WALTER OLOWNIA,
RICHARD MEISTER.