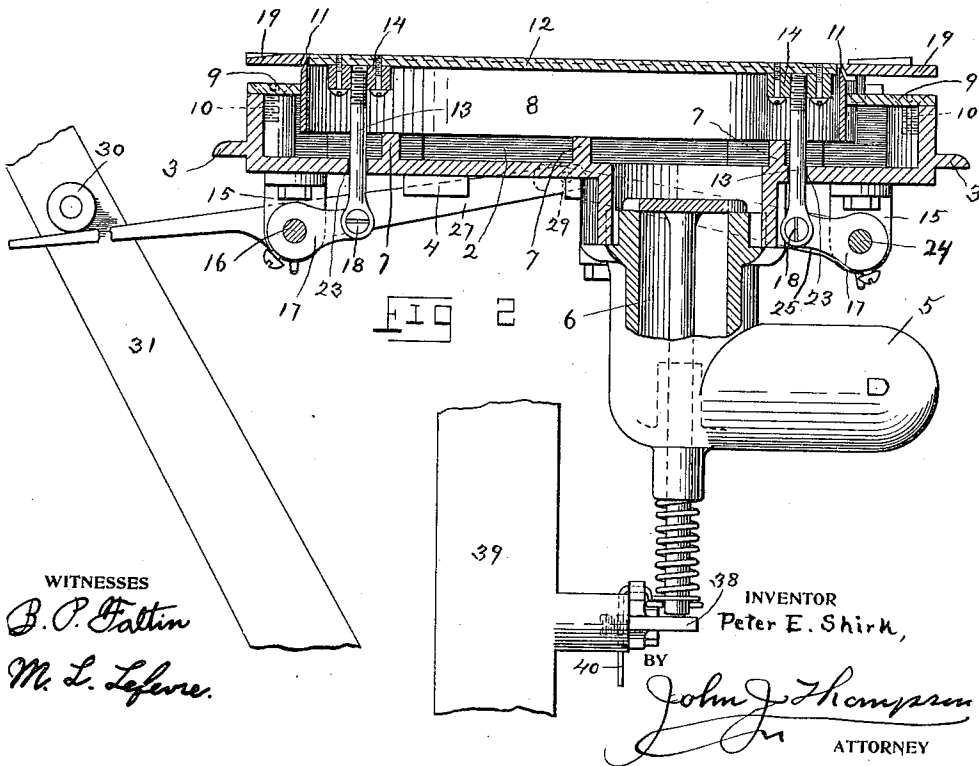
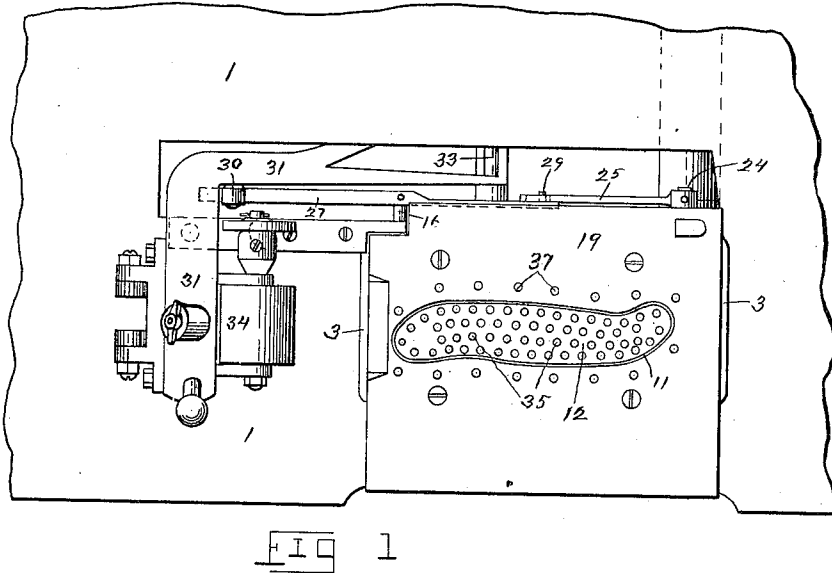


P. E. SHIRK.
MACHINE FOR CUTTING CIGAR WRAPPERS.
APPLICATION FILED MAY 6, 1910.

984,781.

Patented Feb. 21, 1911.
2 SHEETS—SHEET 1.

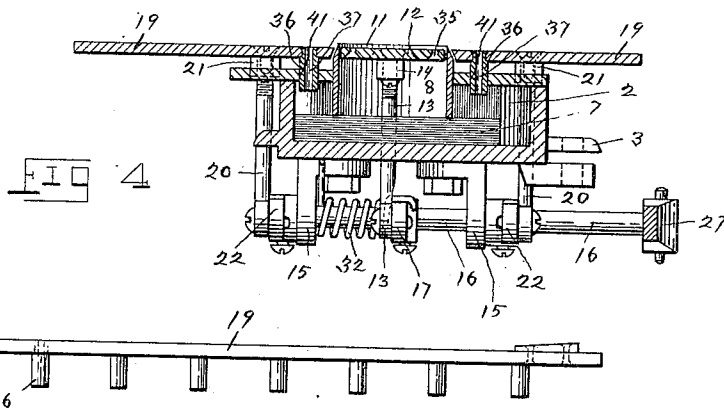
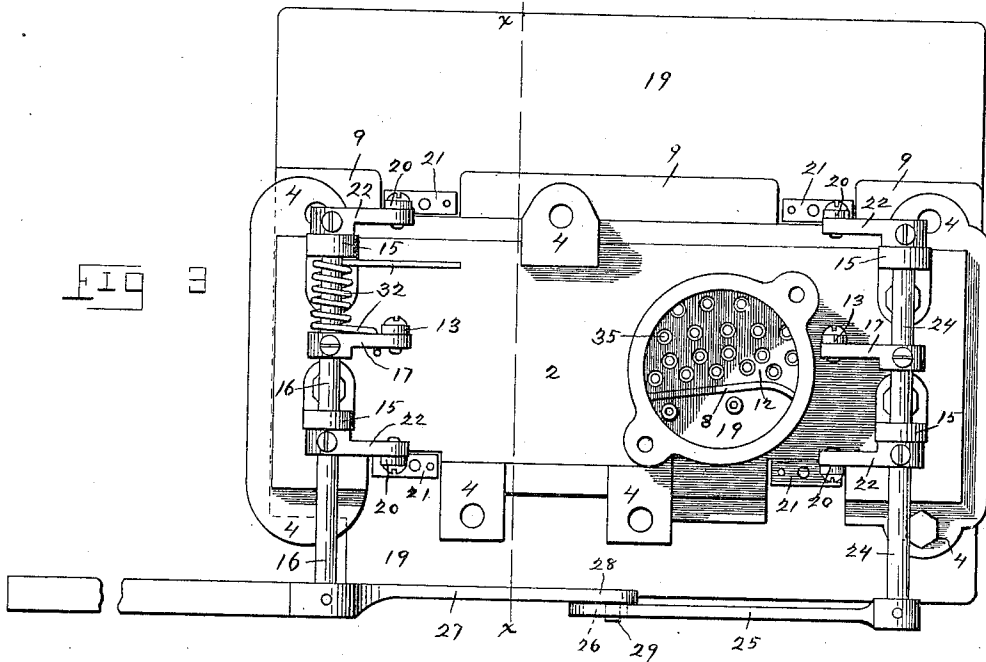


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WITNESSES

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MACHINE FOR CUTTING CIGAR-WRAPPERS.

984,781.

Specification of Letters Patent.

Patented Feb. 21, 1911.

Application filed May 5, 1910. Serial No. 559,512.

To all whom it may concern:

Be it known that I, PETER E. SHIRK, a citizen of the United States, residing at Blue Ball, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Cutting Cigar-Wrappers, of which the following is a specification, reference being had therein to the accompanying drawing.

My present invention relates to a machine for cutting cigar-wrappers, and is an improvement over re-issued Patent No. 11,864, granted to me on Oct. 9, 1900, and Patent No. 714,736, granted to John A. Peepels on Dec. 2, 1902.

The invention as shown and described in the above referred to patents relates to a cigar-wrapper cutting machine wherein the leaf is held by air suction upon a diaphragm in connection with which is mounted a formed cutter which has its cutting edge slightly raised above the surface of said diaphragm and upon which the leaf to be cut rests, and which is cut by passing a roller over the leaf; the cigar being then rolled upon the leaf, but in the above referred to re-issued patent it was found that the edge of the cutter interfered with the rolling of the cigar, and this objection was overcome in the above referred to Patent No. 714,736, by mounting two movable plates upon the table, that had their edges cut to conform to the curve of the cutter and which, after the wrapper had been cut, were moved against the cutter in such a way as to present a smooth rolling surface slightly higher than the cutting edge of the cutter, and upon which the cigar could be rolled, but in time this construction presented many disadvantages which have led to the present improvement.

The objects of the present invention are to provide a smooth and unobstructed surface upon which the cigar may be rolled in the usual way and without danger of cutting or marring the wrapper which is held by suction upon the diaphragm; the operation being effected in a simple and automatic manner, and by the use of few parts.

With these and other objects in view my invention consists in certain construction and combination of parts as will hereinafter be described and claimed in the following specification and illustrated in the accompanying drawings which form a part of this application, and in which like figures of ref-

erence refer to corresponding parts in all of the views; but it is fully understood that while I have here described my invention as shown, that I do not confine myself to the exact design as shown, as slight changes may be made in the construction and arrangement of the several parts without departing from the spirit of the invention.

In the drawings:—Figure 1, is a top plan view of a portion of a cigarmaker's bench, showing the device mounted thereon. Fig. 2, is an enlarged vertical sectional view of the same. Fig. 3, is a bottom plan view, with the air pipe and bench removed. Fig. 4, is a cross sectional view, taken on the line X—X of Fig. 3. Fig. 5, is an edge view of the cigar rolling table or stripper plate.

Referring to the drawings, 1, indicates the bench top which is cut away to admit of the exhaust chamber 2, which rests upon the flange 3, and is secured thereto by bolts or screws through the lugs 4. Said exhaust chamber 2, is provided with the exhaust pipe 5, and controlling valve 6, and is formed with the transverse ribs 7, upon which rests the formed cutter 8, which is held in place by the plate 9, which is cut out to conform to said cutter 8, and is secured upon said exhaust chamber 2, by the screws 10, to form the top thereof; the cutting edge 11, of the cutter 8, extending above the surface thereof. Within the walls of said cutter 8, is mounted a vertically movable diaphragm 12, upon two rods 13, which have their upper ends secured to the sockets 14, which are formed or secured upon the lower surface of said diaphragm 12; said rods 13, extending through the orifice 23, in the bottom of said chamber 2; while mounted in the bearing brackets 15, which are secured upon the bottom of the exhaust chamber 2, are the parallel transverse rocker shafts 16, and 24, upon which are secured the cranks 17, which have their ends pivoted by the screws 18, to the lower ends of the rods 13.

Surrounding the diaphragm 12, and the cutter 8, is mounted a vertical movable table or stripper plate 19, which is secured upon the upper ends of the rods 20, which are attached to the sockets 21, and extend downward past the sides of the exhaust chamber 2, and have their lower ends pivoted to cranks 22, secured upon the rocker-shafts 16, and 24, in such a manner that by the rocking of said shafts 16, and 24, the table 19, and the diaphragm 12, are raised

and lowered simultaneously and when in the lowered position as shown in Fig. 4, the cutting edge 11, of the cutter projects above their upper surface for use in cutting; while in their lowered position their upper surfaces are level and above said cutting edge 11, and present a smooth surface upon which the cigar may be rolled.

For operating the rocker-shafts 16, and 24, there is secured upon the shaft 24, a lever 25, which is formed upon its end with a slot 26; while upon the shaft 16, is secured a lever 27, which has one end 28, provided with a pin 29, which projects through the slot 26, of the lever 25; the lever 27, being rocked upon its pivot by a roller 30, mounted upon an oscillating lever 31, and in this way the table and diaphragm are raised; while they are normally retained in a lowered position by the springs 32, which are mounted upon the shaft 16, with one of its ends in engagement with the crank and its other end in engagement with the bottom of the exhaust chamber 2. Said oscillating lever 31, has its lower end pivoted upon a transverse rod 33, mounted in the bench frame; while upon the upper end of said lever 31, is mounted the leaf pressing roller 34, in the same general way as described in the above referred to patents.

The diaphragm is provided with the suction orifices 35, which communicate with the exhaust chamber 2. The table or stripper plate 19, is also provided adjacent to the edge of its opening with the studs 36, which extend through holes 41, in the exhaust chamber plate 9, serving as guides; while said studs 36, are each provided with a suction air duct 37, communicating with the exhaust chamber 2, and which serve to retain both the leaf and the cut wrapper in place; while the controlling valve 6, is operated by a trigger 38, which is pivoted upon the frame 39, of the bench 1, and operated by a rod 40, connected to a foot pedal, not shown.

In this manner it will be seen that when the device is normally in the position shown

in Fig. 4, a leaf is laid upon the cutter, the controlling valve opened, exhausting the air from the exhaust chamber and retaining the leaf in place by suction; the roller is then applied and the wrapper cut from the leaf,—and upon the backward stroke of said roller the levers are operated to raise the table and diaphragm above the cutting edge of the cutter when the cigar can then be rolled upon the wrapper in the usual way.

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

1. The combination, in a cigar-wrapper cutting machine, having an exhaust chamber, a wrapper-cutting die mounted in said chamber, a table surrounding said die, and means for raising and lowering said table, of guide studs formed with air passages and secured to said table adjacent to the edges of said die and slidably mounted in the top of said exhaust chamber.

2. The combination, in a cigar-wrapper cutting machine, having an exhaust chamber, and a wrapper-cutting die mounted in said chamber with its cutting edge extending above the top surface of said chamber, of a vertically movable diaphragm mounted within said die, a table or stripper-plate surrounding said die, transverse shafts mounted below said chamber, cranks secured upon said shafts, rods pivoted to said cranks and extending upward past said chamber and attached to said table, guide studs formed with air passages and secured to said table and slidably mounted in the top of said chamber, means for normally retaining said diaphragm and said table in a lowered position, and means for simultaneously raising said diaphragm and said table by the rocking of said shafts.

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

PETER E. SHIRK.

Witnesses:

JOHN J. THOMPSON,
WM. J. COULTER.