B. LIBERMAN.

CIGAR WRAPPER CUTTER AND ROLLING TABLE.

APPLICATION FILED JUNE 18, 1915.

1,318,776.

Patented Oct. 14, 1919.

2 SHEETS—SHEET 1.

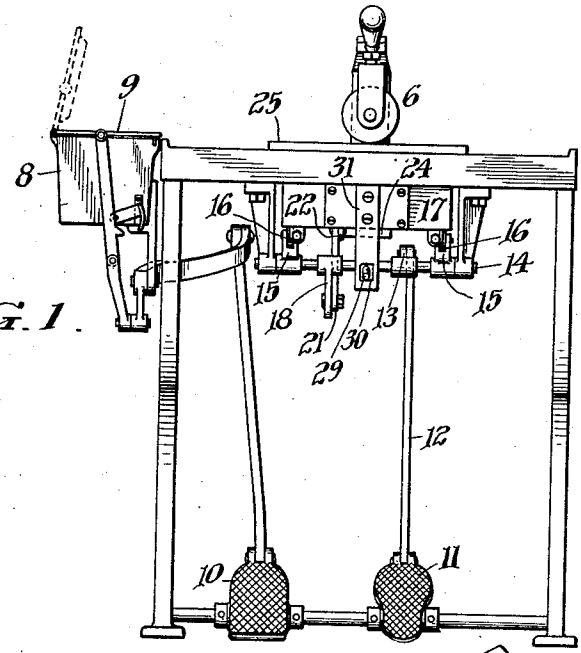


FIG. 1.

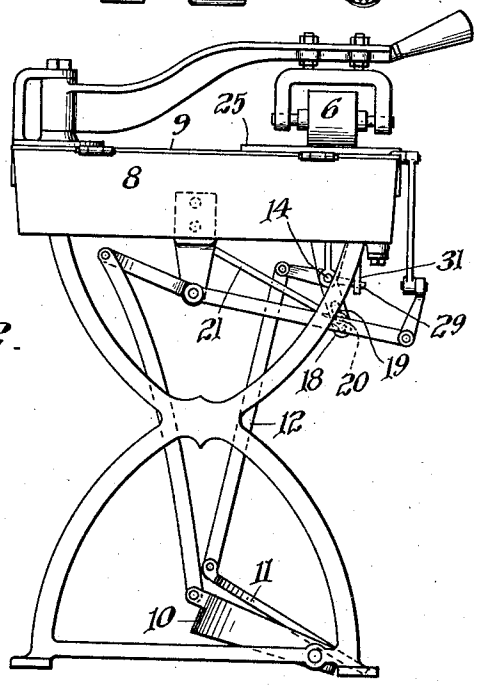


FIG. 2.

Witnesses

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Inventor

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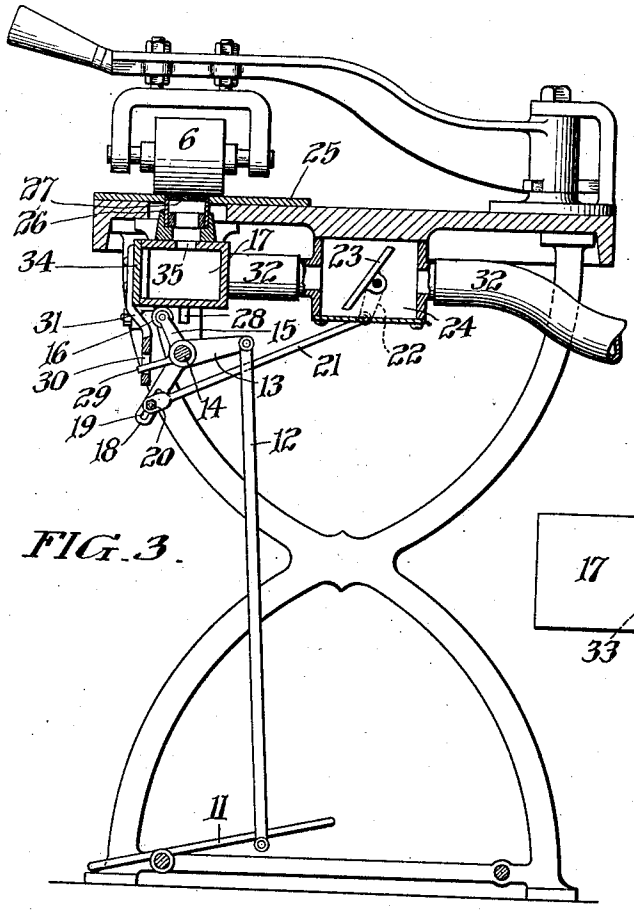


FIG. 3.

FIG. 5.

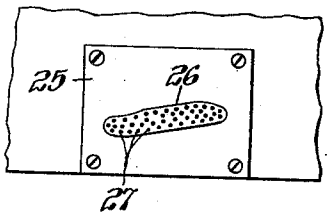
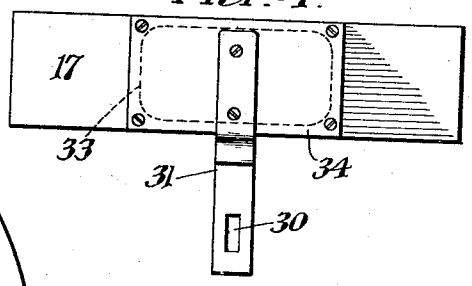


FIG. 4.



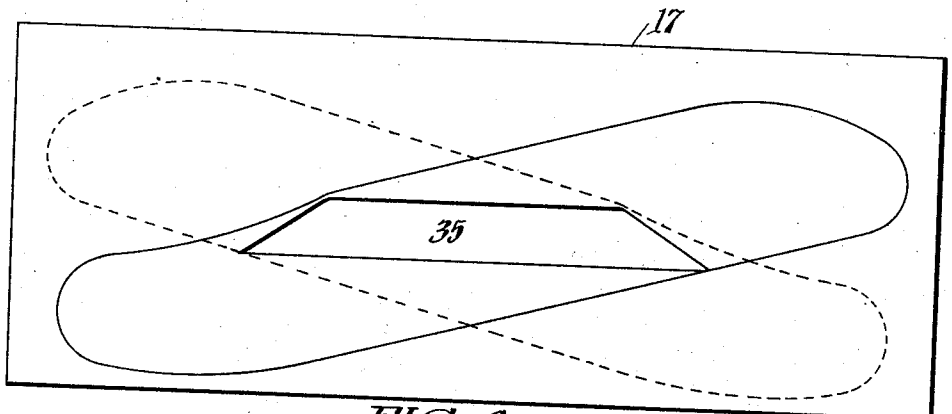


FIG. 6.

WITNESSES

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CIGAR-WRAPPER CUTTER AND ROLLING TABLE.

1,318,776. Specification of Letters Patent. Patented Oct. 14, 1919.

Application filed June 18, 1915. Serial No. 34,770.

To all whom it may concern:

Be it known that I, BERNARD LIBERMAN, a citizen of the United States, residing at Philadelphia, in the county of Philiadelphia, State of Pennsylvania, have invented a new and useful Cigar-Wrapper Cutter and Rolling Table, of which the following is a specification.

My invention relates to improvements in cigar wrapper cutter and rolling tables. The object is to provide, in a single organization, or in a single self-contained table, means for cutting cigar wrappers, for rolling the wrappers upon the cigar, and means for maintaining a supply of wrappers, in moist condition, convenient to the hand of the operator, comprising a humidor having a cover for maintaining the same closed to protect the wrapper from the atmosphere and dust and pedal operated actuating means for the cover in order to leave the hands of the operator free.

The invention also comprises pedal operated means for elevating the knife for cutting the wrapper and means controlled by the same pedal, for holding the wrapper leaf upon the platen by suction during the cutting operation; thus combining under a single pedal control the die actuation and the suction, so that with the two pedals the operator is able to control the humidor cover, the die and the suction.

The invention also comprises improved means for regulating the relative range of movements of the die and of the suction valve or suction control; so that the suction may be reduced or modified to any desired extent, after the die is depressed in order that the rolling may take place with diminished stress on the wrapper.

The invention also comprises an improved arrangement or positioning of the die with its longitudinal horizontal axis inclined to the front line of the table, in order that the operator may roll the wrapper with less tendency to twist the same; that is to say, wrapper cutting and rolling tables, now in common use, are provided with a die having its longitudinal extension parallel with the front edge of the table, or at right angles to the direction in which the operator faces when sitting at the table. In such tables the cigar maker is obliged to roll the wrapper upon the cigar with a sidewise twisting motion. This motion is liable to cause rolls which do not overlap properly, termed in the trade "skippers". By placing or arranging the die with its longitudinal axis inclined to the front edge of the table, this objection is obviated, provided the inclination is correct with respect to whether the operator is "right handed" or "left handed". If it is wrong in this respect, it is worse than the "parallel" die above referred to. The present invention comprises means for changing the die and the plate within which it lies, from "right-hand" to "left-hand" operation, and vice versa, without otherwise changing the table.

The invention also comprises an improved suction box with ready access to the interior thereof for the purpose of cleaning the same.

Referring to the drawings, which illustrate merely by way of example, suitable means for the embodiment of my invention—

Figure 1 is a front elevation of a machine embodying my improvements.

Fig. 2 is a side elevation of same.

Fig. 3 is a sectional elevation.

Fig. 4 is an elevation in detail, on an enlarged scale, showing the front of the suction box.

Fig. 5 is a plan view of part of the top of the table showing the arrangement of the cutting die.

Fig. 6 is a plan view on an enlarged scale, of the top of the suction box.

Similar numerals refer to similar parts throughout the several views.

In cigar wrapper cutters and rolling tables now in common use, two pedals are used, one for causing the actuation of the cutting die and the other for controlling the suction. In such machines the wrappers or the leaves from which the wrappers are cut are usually laid upon the table within reach of the operator and are covered with or wrapped in a wet cloth, to maintain the tobacco moist. The objection to this practice is set forth in my Patent No. 1,082,277.

The use of a humidor as set forth in that patent has been found much more sanitary, and in every way more efficient. The knee movement for operating the lid, as shown in said patent, is not so familiar an operation, to the average operator, as the pedal movement, nor is the control of three pedals found convenient to the average operator.

By combining the control of die and suction under one pedal, and placing the control of the humidor under the other pedal, I produce the maximum of efficiency and convenience in cigar wrapper cutters and rolling tables. That is to say the operator is only confronted with the usual two pedals, and yet with these two pedals he is able, without greater effort than hitherto needed for the control of die and exhaust, to control the die, the exhaust and humidor entirely in accordance with his requirements.

Figs. 1 and 2 show in elevation the table equipped with the movable cutting die 6, the regulatable exhaust control, and the humidor 8 with a pedal controlled closure 9.

It is by combining two controls under a single pedal, and by properly relating their actuation, that it becomes feasible to associate all three features upon a single table with two pedals only. Such an association has been found to meet and satisfy a very distinct need.

The humidor 8 consists of a receptacle adapted to contain water; a perforated partition is suitably supported above the level of the water, for supporting the tobacco leaves or wrappers. A cover or lid 9 is hinged to the receptacle, and, through a series of actuating levers, is in operative relationship with the pedal 10.

Pedal 11 is connected to the arm 13 mounted on shaft 14. Shaft 14 also carries arm 15 having a roller 16 for engaging the suction box 17 to actuate the same.

Shaft 14 also carries arm 18 provided with the slot 19 in which is secured the pivot 20 of connecting rod 21. The other end of connecting rod 21 is secured to arm 22 of valve 23 operating in valve box 24, so that the actuating shaft 14, carrying arms 13, 15 and 18, is operated by pedal 11 to cause the simultaneous actuation of the cutting die and the suction control.

The metallic plate 25, which is supported on the usual form of table, is recessed for receiving the cutting die 26, within which is suitably supported the perforated platen 27, conforming in outline to the contour of the die. This rolling plate 25 is placed upon the middle front portion of the table with its front edge substantially corresponding to the front edge of the table, while the die has its longitudinal extension at an inclination to said front edge. Plate 25 is adapted to be changed to change the direction of inclination of the recess for receiving the die so that a die of opposite inclination may be substituted. That is, for changing the table from right hand to left hand operation and vice versa. The die is shown as supported upon the suction box 17 which is provided with lugs having a vertical movement in the ways 28 on either side thereof. Arm 29 connected with shaft 14 and projecting into slot 30 of extension 31, from the suction box 17, serves to actuate the suction box positively in case it should stick or for any reason not respond to gravity, when it is desired to depress the die.

The suction box 17 is connected with the flexible conductor 32 leading through a valve box 24 to a blower or other suitable suction device. A suitable valve 23 is located in this valve box 24, mounted on a shaft projecting through the box and connected with the arm 22. The slotted arm 18 is adjustably mounted on shaft 14. The connecting rod 21 has an adjustable connection at any desired point in the said slot 19 of arm 18. By the proper relative adjustment of arms 13 and 18 the depression of pedal 11 will cause the elevation of the suction box 17 and of the die 26 into the cutting position, and at the same time the movement of the valve 23 in valve box 24 to the complete open position. By the proper adjustment of the pivot 20 of rod 21 in the slot 19 of arm 20, the required amount of closure of the valve may be secured upon the elevation of pedal 11 and the depression of the die 26.

In suction tables now in common use having a die pedal to raise and lower the die, and a suction pedal to admit and shut off the suction, when the suction pedal is operated, the exhaust is made effective to the full extent, and upon releasing this pedal the suction is shut off completely. With this arrangement, the cigar maker spreads the wrapper out over the die and presses the suction pedal to apply the suction thereon. In this operation the cigar leaf is stretched crosswise of the die. He then passes the pressure rollers over the die, which has been elevated, and cuts out the wrapper of the same shape as the die. The suction meanwhile continuously holds the wrapper with the suction at maximum force. By this operation the wrapper becomes stretched in its width instead of in its length, as would be more desirable. By reducing the suction upon depressing the die before the rolling operation begins, by one-half or one-fourth less than the force of the suction effective during the cutting operation, the wrapper is relieved of the stress to which it was subjected during cutting and assumes a more normal condition. This prevents the same from being rolled upon the cigar in the stretched condition across its width, which causes a tendency of the wrapper to shrivel up after it has been rolled upon the cigar and dries out. As has already been pointed out the amount of reduction of the exhaust pressure, during the rolling operation, may be regulated to suit any requirements, by means of the adjustment of the pivot 20 of the connecting rod 21 in the slot 19 of arm 18.

After a suction table has been in operation for some length of time the air chamber of

the suction box 17, beneath the die, is found to have accumulated a large quantity of tobacco dust, which has gradually been sucked into the chamber. When the suction table is cleaned in the usual manner with a wet cloth, more or less of the moisture from the cloth drips into the air chamber and causes the dust accumulated therein to form into hard lumps. These lumps interfere with the efficiency of the suction passing through the die platen and air chamber. It becomes necessary therefore to clean out these accumulations from time to time. In machines now in common use this is an operation requiring considerable time, since it requires the removal of several of the parts. By providing an opening 33 in the front of the suction box over which is fitted a suitable door or closure 34, it is only necessary to remove this door to gain complete access to the suction chamber for cleaning the same.

As above stated by arranging or positioning the die with its longitudinal axis at the required inclination to the front of the table, the wrapping of the cigar is greatly facilitated, and the twisting motion which tends to prevent the rolls from overlapping properly and which results in what is termed in the trade "skippers" is entirely overcome.

In order that the suction box which supports the die may readily accommodate either a right hand or a left hand die, in the desired relatively inclined position, that is with the end of the die at which the rolling begins, located nearer the front edge of the table than the other end, I have provided the box, with its slot 35, which communicates with the interior of the die, having a beveled shape termination at each end, as shown in Fig. 6, in which the left hand die is indicated in solid lines, and the right hand die in dotted lines, both registering with said slot.

The angle of inclination of the die may of course be modified to suit required conditions. That shown in Fig. 6 is only given as an example.

In manufacturing "shaped" cigars, in order to form the tuck without having a pocket, the operator, when the die is parallel with front of the table, must lean over and operate upon the end of the cigar on the far side thereof, while with the die inclined, as described, the part to be operated upon, called the tuck end, is brought into a much more convenient position for the operator.

What I claim is:—

1. In a cigar wrapper cutter and rolling table, the combination of a vertically movable cutting die, means forming a suction chamber and a valve associated therewith, means for simultaneously actuating the die and the valve comprising an operating member and connecting mechanism and adjusting means connected therewith for regulating the range of movement of the valve relatively to the die, whereby the suction is modified to the required extent after the die is depressed, in order that the rolling may take place with the required diminished stress on the wrapper.

2. In a cigar wrapper cutter and rolling table, the combination of a continuous cutting die, a perforated platen suitably supported entirely within the die, a suction box supporting the die having an opening for communication with the interior of the die, a rolling plate having a recess to receive the die with its longitudinal extension inclined to the front line of the table, the opening in the suction box so formed and the parts so proportioned and arranged whereby the plate is adapted to be changed and a die of opposite inclination substituted, in order to change the table from right hand to left hand and vice versa.

BERNARD LIBERMAN.

Witness:
MAE HOFMANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."