

No. 676,677.

Patented June 18, 1901.

A. DU BRUL.

CIGAR WRAPPER CUTTER.

(Application filed Feb. 2, 1901.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.

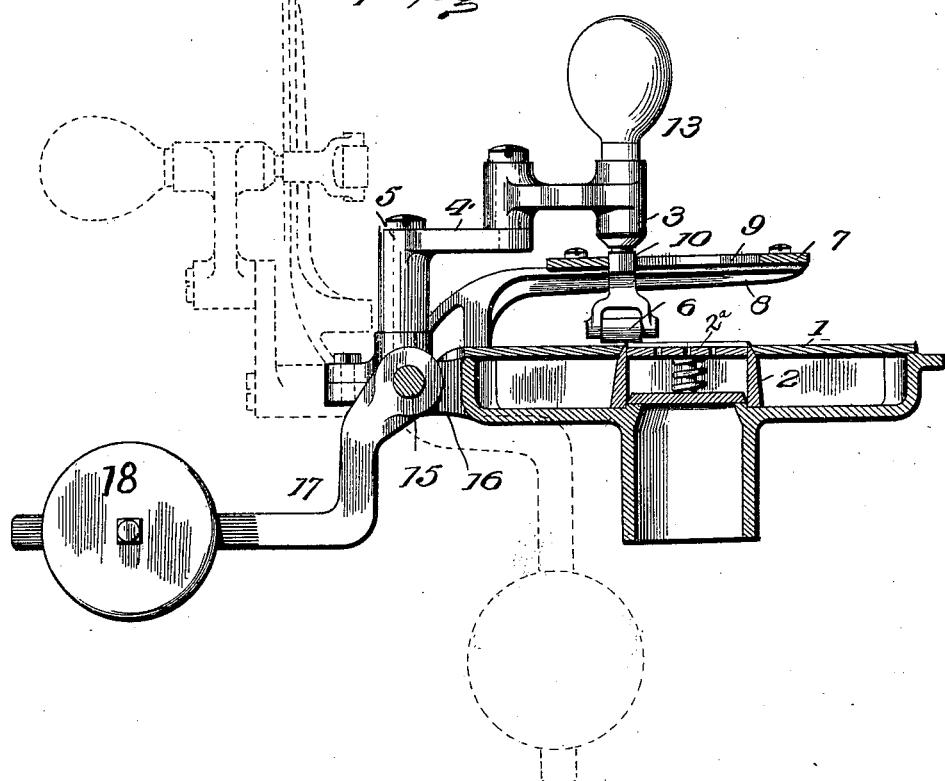
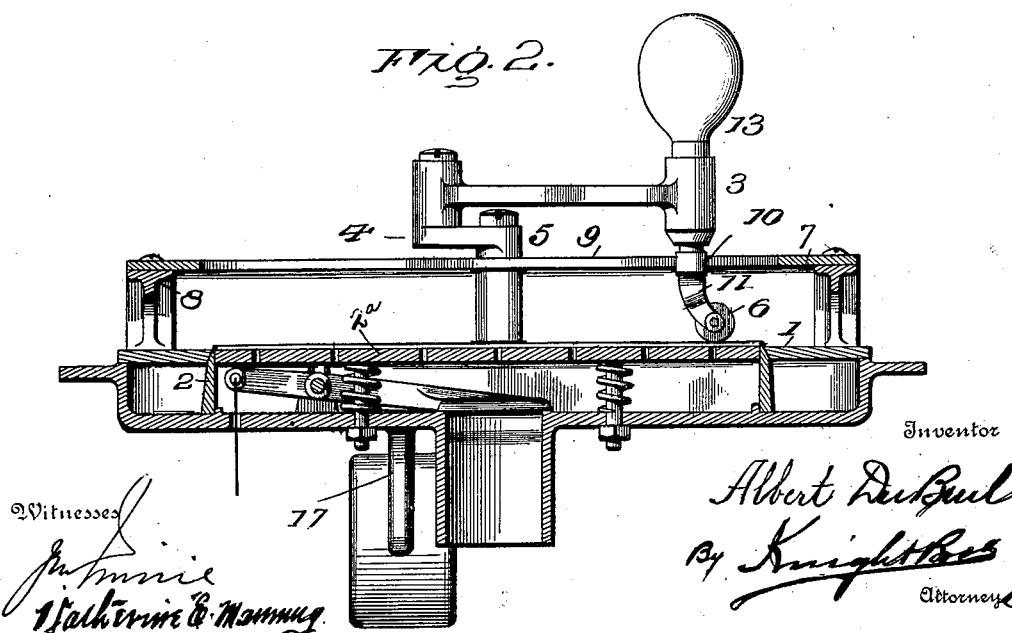


FIG. 2.



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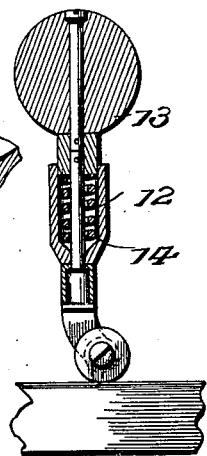
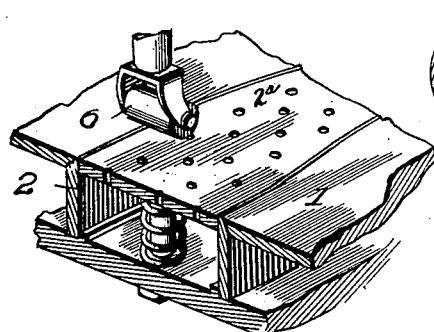
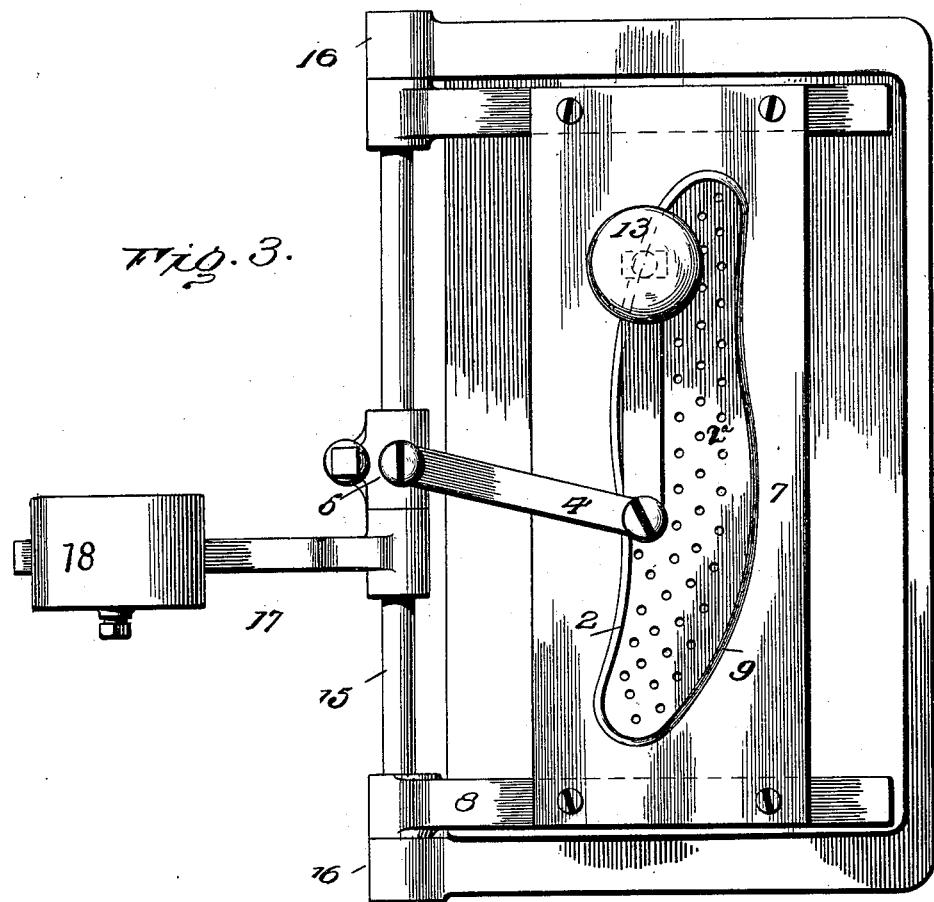
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

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CIGAR-WRAPPER CUTTER.

SPECIFICATION forming part of Letters Patent No. 676,677, dated June 18, 1901

Application filed February 2, 1901. Serial No. 45,740. (No model.)

To all whom it may concern:

Be it known that I, ALBERT DU BRUL, a citizen of the United States, and a resident of the borough of Queens, in the city and State 5 of New York, have invented certain new and useful Improvements in Cigar-Wrapper Cutters, of which the following is a specification.

My present invention relates to a machine that may be manipulated for cutting from 10 leaf-tobacco blanks of suitable shape to be used as cigar-wrappers; and my invention consists in certain novel features of construction whereby the shaping of the wrapper is facilitated and the cutting accomplished in a 15 better manner.

This application covers a specific embodiment of certain principles that are broadly covered by my application, Serial No. 45,739, of even date herewith.

It has been common for many years to cut 20 cigar-wrappers from tobacco-leaves by means of a cutting-die corresponding in contour to the desired wrapper and fixed in a perforated table through which suction is induced to 25 hold the leaf by atmospheric pressure to the table and edge of the cutting-die while being cut and to apply cutting pressure to the leaf on the edge of the die by means of one or more rollers extending across the face of the 30 cutting-die and caused to traverse the same from end to end by a horizontal movement. Such cutting movement of rollers as heretofore employed, especially in rapid operation, usually causes them to impinge in a horizontal 35 direction against the ends of the cutting-die, resulting in bruising and discoloring the margin of the wrapper and also in injury to the edge of the cutting-die at these points. Furthermore, it is impracticable or difficult 40 to insure perfect cutting action on all parts of the cutting edge by means of either single or double rollers bearing simultaneously on both sides of the cutting-die, even by passing the rollers repeatedly over the cutting-die.

From both these causes—namely, the impairment 45 of the cutting edge of the die and the imperfect action of the rollers—it frequently occurs that the wrapper is torn at one or more points in separating it from the waste 50 portion of the leaf. In my improved machine I employ a small roller supported in

vertical position above the cutting-die, brought in contact therewith at a single point by a vertical movement when depressed by the hand of the operator and passing over 55 the edge of the cutting-die in a complete circuit controlled by a guide conforming to the contour of the cutting-die.

According to my present invention I employ 60 a cutting-die suitably mounted in a table and over which the leaf is laid, said leaf being pressed upon the die in order to cut the wrapper from said leaf. My invention relates more particularly to the means employed for bringing the cutting-pressure upon 65 the leaf over the edge of the die. To accomplish this purpose, I employ a tool that may 70 be manipulated in a horizontal direction over the table and a guide, preferably in the form of a gage-plate, by which the tool is directed 75 in its travel and caused to traverse a path conforming to the cutting edge of the die. In this way I am enabled to use a comparatively small and light roller through which to press the leaf upon the die, and thus avoid 80 the use of large and cumbersome rollers, which are necessary where the tool swings in a fixed arc. The roller is secured to the tool-stock through the medium of a caster-mounting and is thereby made to follow the travel 85 of the tool and remain at all times normal to the cutting edge upon which it is pressing, notwithstanding the constant change in the direction of that edge.

My invention will be fully understood upon 85 reference to the accompanying drawings, in which—

Figure 1 is a vertical section from front to rear of a cigar-rolling table to which my invention is applied. Fig. 2 is a vertical section 90 of the same in a plane at right angles to Fig. 1. Fig. 3 is a plan view of the same. Fig. 4 is a detail perspective illustrating the relation of the traversing roller to the cutting-die. Fig. 5 is a vertical section of the 95 tool.

1 represents a cigar-rolling table in which is mounted a wrapper-cutting die 2, having a perforated platen 2^a, through which suction is induced to hold the wrapper in place. 100

3 represents a tool that is supported vertically by a hinging-bracket 4, swiveled at 5

and permitting said tool to move freely in a horizontal direction. The tool 3 carries a roller 6 in its lower end, which is adapted to bring pressure to bear upon a tobacco-leaf 5 above the edge of the cutting-die for the purpose of cutting out a wrapper from said leaf. The roller 6 is of comparatively small and light structure and is made to traverse the edge of the cutting-die 2 by means of a gage-plate 7, supported above the table by means of arms 8 and having an aperture 9, in which the tool 3 works. The aperture 9 conforms in its outline to the edge of the cutting-die 2, and by holding the tool against the outer edge 10 of this aperture as it is moved over the table, a friction-roller 10 being provided on the tool to impinge said edge, the tool will be made to travel in a path conforming to the cutting-die, and the cutting-roller 6 will at all times 15 bear upon the cutting edge of said die. In order that the roller 6 may trail after the tool, and thus keep its axis at all times normal to the cutting edge over which it is traveling, it is secured to the tool-stock through the medium of a caster-mounting 11.

The cutting-roller 6 is held normally above the plane of the edge of the cutting-die by means of a spring 12, Fig. 5, interposed between the grip 13 of the tool and the socket 30 14, through which said tool is supported above the table. In this way the roller is held out of contact with the leaf, and disarrangement of the latter is prevented, while the weight of the hand of the operator applied to the grip 35 13 overcomes the spring and applies the necessary pressure for cutting.

The swivel 5, by which the jointed bracket 4 is supported, and arms 8, which support the gage-plate 7, are all fixed upon a shaft 15, 40 journaled in fixed bearings 16 on the main frame of the machine, and said shaft 15 is provided with a counterbalance-lever 17, carrying a weight 18, the gravitation of which rotates the shaft 15 to an angle of about 45 ninety degrees and raises the tool and its gage-plate from over the table when said parts are not in use, thus leaving the table unobstructed when the leaf is placed over the die and the wrapper is to be rolled upon the cigar-bunch.

I have shown and described in this appli-

cation several novel features of construction which are not claimed herein. The features are claimed in my contemporaneous application hereinbefore referred to.

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

1. In combination with a table having a wrapper-cutting die, means for holding a leaf thereto by suction, a tool carrying a roller through which pressure is brought to bear upon a leaf above the die, and a guide-directing the tool in a path conforming to the die and causing its roller to traverse the circuit 65 of the cutting edge of said die.

2. In a cigar-wrapper cutter, the combination of a table having a cutting-die, means for holding a leaf thereto by suction, a tool supported vertically above said table but having freedom of horizontal movement thereon, a roller carried by the tool and a guide-plate having an aperture conforming in outline to the die and having the tool work therein to direct it in a path which causes the roller of 75 said tool to traverse the circuit of the cutting edge of the die.

3. In a cigar-wrapper cutter, the combination of a cutting-die, means for holding the leaf over said die by suction, a roller, means 80 affording vertical support and freedom of horizontal movement to said roller above the table and a guide-plate directing the course of said roller in a path conforming to the cutting edge of the die.

4. In a wrapper-cutting machine, the combination of a table having a cutting-die, means for holding a leaf thereto by suction, a tool supported vertically but movable horizontally above the table, a guide-plate directing the tool in a path conforming to the cutting edge of said die, and a roller secured to the lower end of said tool by a caster-mounting.

5. In a wrapper-cutting machine the combination of a cutting-die, means for holding a leaf over said die by suction and a caster-roller movable over the edge of said die to impose cutting pressure upon the leaf.

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