(No Model.)

N. DU BRUL.

CIGAR WRAPPER CUTTING MACHINE.

No. 599,227. Patented Feb. 15, 1898.

Fig. 1.

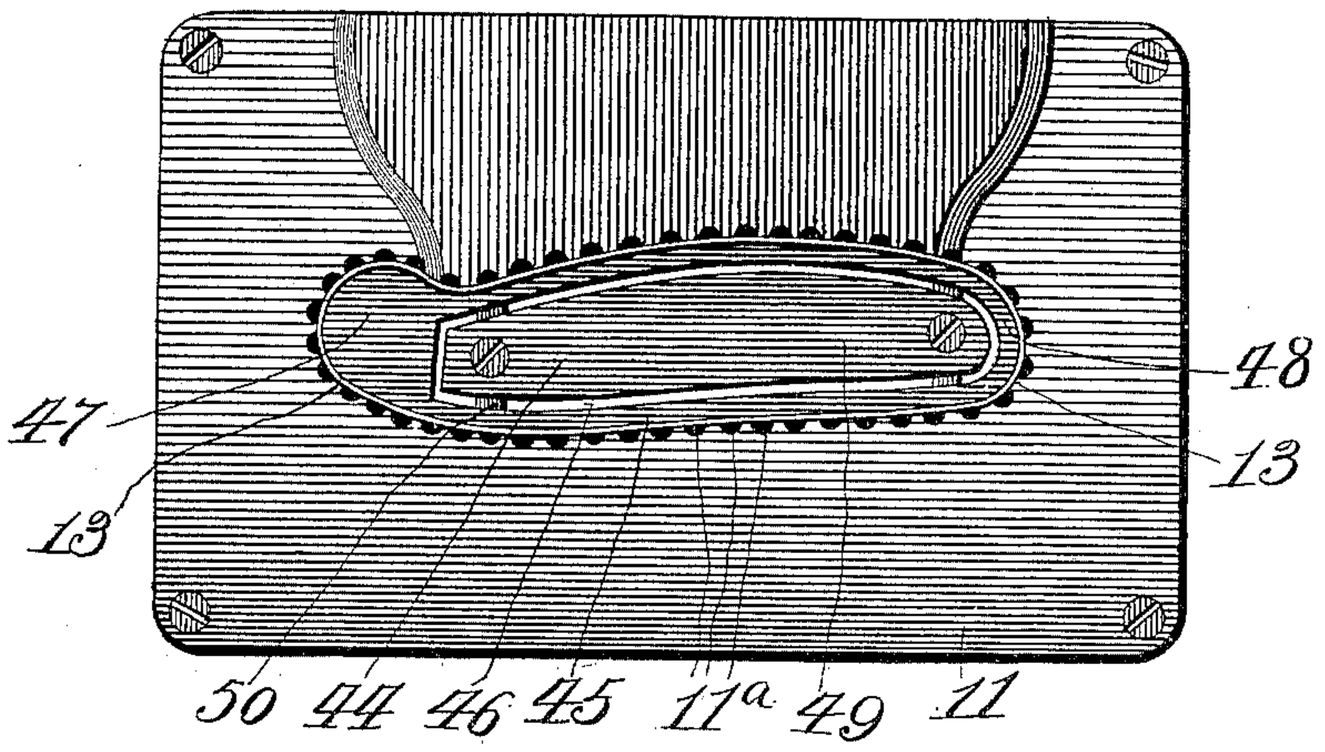


Fig. 2.

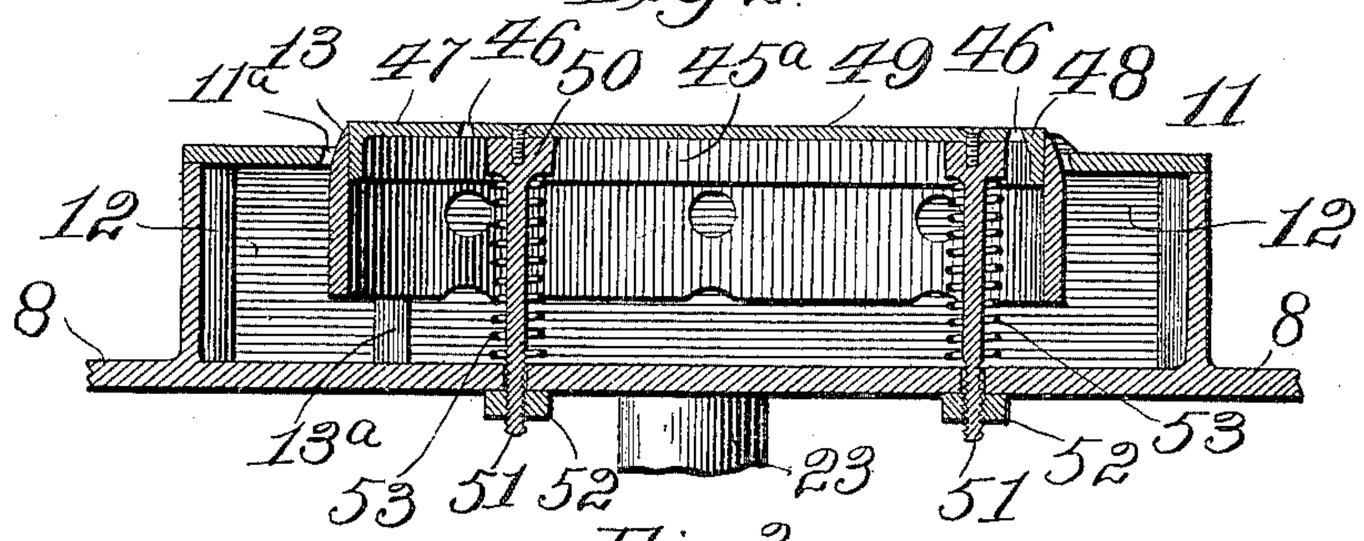


Fig. 3.

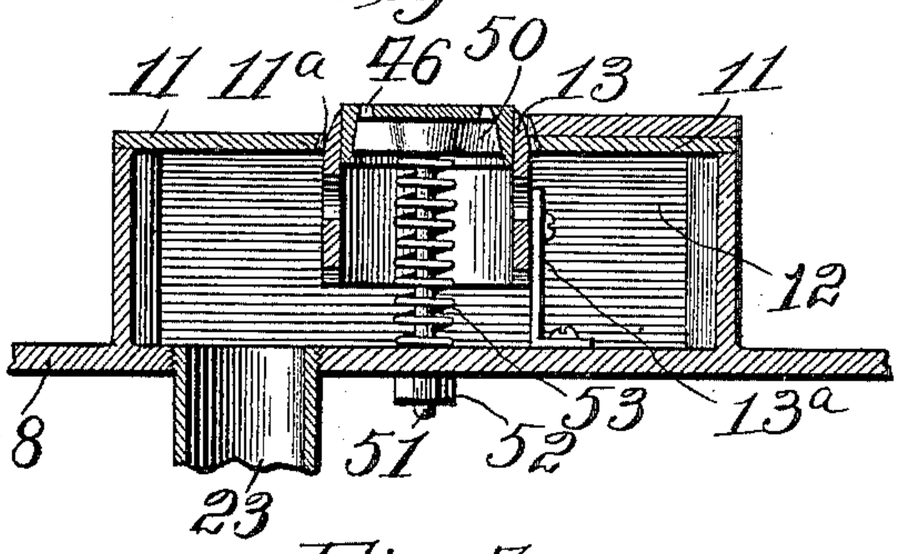
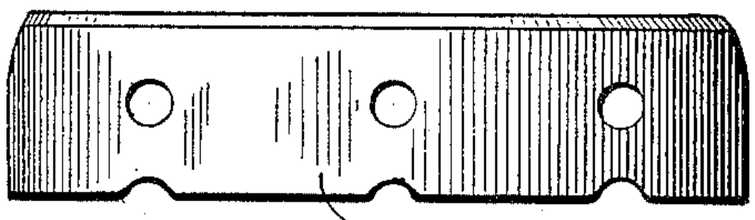


Fig. 4.



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CIGAR-WRAPPER-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 599,227, dated February 15, 1898.

Application filed April 22, 1897. Serial No. 633,368. (No model.)

To all whom it may concern:

Be it known that I, NAPOLEON DU BRUL, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cigar-Wrapper-Cutting Machines, of which the following is a full, clear, and exact specification.

This invention relates to devices which employ a cutting-die and leaf-support for cutting out from a tobacco-leaf a wrapper of suitable shape, and particularly to that class of such machines which employ an air exhaust or suction for holding the leaf smooth during the cutting operation.

One object of my present invention is to so shape the cutting-die and leaf-support that the wrapper will be substantially the correct shape to wrap the cigar, except at one end, where it is left large enough to permit the operator to trim or shape said end to suit the particular shape of point of the cigar which he is making.

A further object is to cause the air to be exhausted from beneath the leaf which is applied over the cutting-die through an opening arranged closely around the outside of the said cutting-die and also from within the cutting-die.

A further object is to so construct the inner leaf-support, which I shall term the "block," that an ample quantity of air will be drawn therethrough to insure proper holding of the leaf, but not enough to cause the objectionable drying out of the leaf, which occurs with many machines of this sort, said block being also constructed so as to provide a support for the edge of the wrapper after it is cut, and thereby prevent said edge being drawn down, which causes folding and consequent inconvenience in wrapping, said inner support or block being further provided with an unbroken end from which the rolling of the bunch is started, the object of which is to enable the operator to quickly raise up that end of the wrapper and start it around the bunch, and also to prevent said end drying out too much and breaking.

My invention consists in novel features of construction which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan of a cutting-die with its surrounding platen and the inner leaf-support, which parts are constructed in accordance with my present invention. Figs. 2 and 3 are respectively a longitudinal and a transverse section of the cutting-die and its surrounding parts, and Fig. 4 is is a side elevation of the cutting-die.

13 represents the cutting-die, which may be of any suitable shape and construction and either supported by arms 13^a upon the base of the suction-chamber 12 or resting upon said base, as circumstances may dictate. The cutting-die is surrounded by the suction-chamber 12, which may be conveniently formed by the side walls projecting integrally from the base or table 8, and the removable covering-platen 11. This platen 11 surrounds the cutting-die 13 and is formed with an opening to receive the latter. This opening is so constructed as to leave a space or spaces 11^a close up to the outside of the cutting-die in order that air may be exhausted through said space from beneath the leaf which covers the cutting-die. I find it convenient to make spaces 11^a by serrating the edge of the opening through which the cutting-die projects, as the intervening points are thereby adapted to bear against the cutting-die and support the removed portions of the leaves without obstructing the air-suction and permit the cutting-die to be held in place by its surrounding platen.

44 represents an inner leaf support or block. This is constructed so as to have an outer continuous broad rim or edge 45 fitting snugly to the inside of the cutting-die 13 and affording a support for the edge of the wrapper in such a way as to prevent said edge from being drawn down by the air-suction and becoming curled or folded. This is found to be a fruitful source of inconvenience in air-exhaust cutters as heretofore constructed, as a wrapper thus curled upon the edge tends to fold during the wrapping operation and prevents quick work. This block is also provided with a continuous exhaust-opening 46, through which the air is exhausted through the interior of the cutting-die to hold the leaf firmly in place. The supporting-rim 45 is enlarged at one end, as shown at 47, to afford a support for that end of the wrapper which is first applied to the bunch. The absence of

openings in the part 47 enables the operator to get hold of this end more conveniently and start it around the bunch. Moreover, said end is not subjected to the drying current of air, and therefore will not break during its application. The opposite end 48 of the cutter is of such shape as to give an enlargement and leave plenty of room for trimming or shaping said end of the wrapper to suit the point of cigar which is being made.

The leaf support or block 44 is preferably made of a frame 45, which fits within the cutting-die and forms the broad rim 45, and a central portion 49, which is mounted upon cross-ribs 50 of said frame, being either secured removably thereto or cast integral with said ribs. These ribs also carry downwardly-extending rods 51, which work through the base 8 and have nuts 52, which act as adjustable stops, while said ribs are surrounded by springs 53, confined between the base 8 and the ribs 50 and serving to hold up the block at all times on a level with or slightly above the cutting edge with a pressure which permits the block to yield to the cutting pressure, which is applied by any well-known pressure device common in machines of this character and not necessary to be here described.

23 represents a suction-outlet which may lead to any suitable air-exhaust.

By constructing the cutter as above described a convenient machine is provided which admits of very quick work. The wrapper is held after being cut so as to permit it to be rolled around the cigar while on the block. Moreover, the simplicity of construction of the die-block or inner support is such that the cutter is particularly adapted for cutting wrappers which are to be pasted around the bunch throughout their length, as in the case of a cheroot, which may be lighted at either end. For such work as this the inner support or block will not become clogged up, as would be the case with perforated supports or blocks, and even if it should be clogged in the course of time it may be very quickly cleaned. Furthermore, the employment of the air-exhaust both inside and outside of the cutting-die permits the leaf to be quickly stretched and held in position, adding very much to the rapidity of the operation. While I have described the construction of frame and central portion which go to make up the inner block in connection with the outer perforated platen, it is obvious that this feature is applicable to cutters employing a tight outer platen.

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

1. A cigar-wrapper-cutting machine comprising a cutting-die, a rim or frame fitting neatly within said cutting-die and having ribs 50, and the inner plate spaced apart from the outer rim or frame so as to leave a continuous passage for the exhaust of air and supported upon said ribs; substantially as explained.

2. A cigar-wrapper-cutting machine comprising a suitable cutting-die, an inner support consisting of the rim or frame having the transverse ribs and the plate supported upon said ribs within the rim or frame so as to leave a continuous space surrounding said plate, rods 51 extending downwardly from said ribs and working in a suitable support, and springs surrounding the rods, resting on said support, and engaging beneath the ribs to support the inner support; as explained.

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