No. 811,108. PATENTED JAN. 30, 1906.

O. TYBERG.

WRAPPER SUPPORT FOR CIGAR MACHINES.

APPLICATION FILED SEPT. 13, 1904.

Fig. 1.

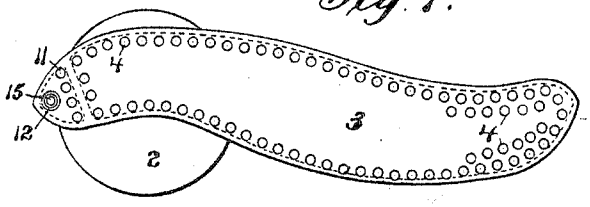


Fig. 2.

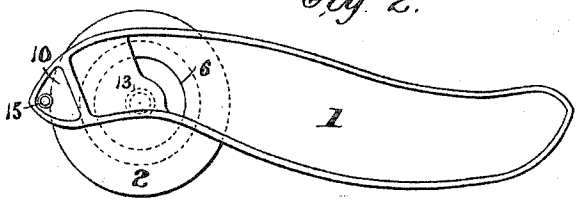
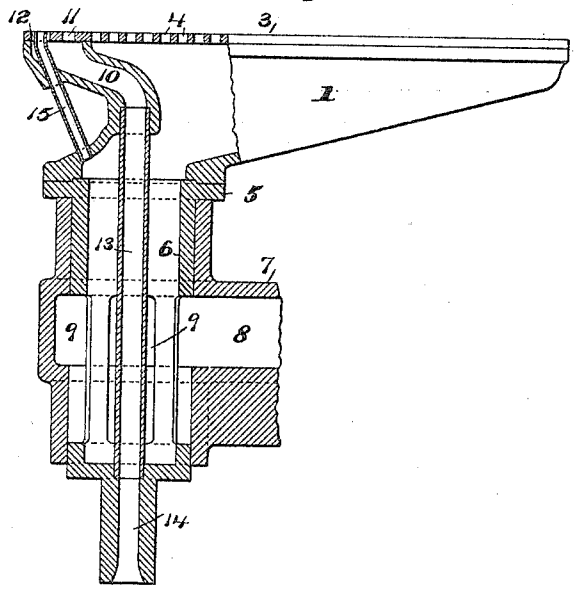


Fig. 3.



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UNITED STATES PATENT OFFICE.

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WRAPPER-SUPPORT FOR CIGAR-MACHINES.

No. 811,108. Specification of Letters Patent. Patented Jan. 30, 1906.

Application filed September 13, 1904. Serial No. 224,269.

To all whom it may concern:

Be it known that I, OLUF TYBERG, a citizen of the United States, residing at New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Wrapper-Supports for Cigar-Machines, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to certain improvements in wrapper-supports for cigar-machines.

In a certain class of cigar-machines the wrapper is presented to the wrapping mechanism by a support upon which it is held by retaining devices which usually embody a suction mechanism, the wrapper being drawn from the support by the wrapping mechanism against the action of the retaining devices. In these machines it has been customary either to allow the tip of the wrapper to project slightly beyond the support, so that it may be caught by the wrapping mechanism, or to release the tip of the wrapper from the action of the retaining devices slightly before it is caught by the wrapping mechanism. It has been found in practice, however, that the tip of the wrapper is liable to curl if it is allowed to project beyond the end of the wrapper-support, and when the tip of the wrapper is released from the retaining means on the support and, as is usually the case, the tip is then forced down by a blast mechanism into the wrapping mechanism the tip is liable to curl under the action of the blast mechanism.

It is the object of this invention to produce a wrapper-support by which the tip of a wrapper may be properly presented to the wrapping mechanism, the tendency of the tip to curl being prevented.

With this and other objects not specifically referred to in view the invention consists in certain constructions and in certain parts, improvements, and combinations, as will be hereinafter fully described and then specifically pointed out in the claims hereunto appended.

In the accompanying drawings, Figure 1 represents a plan view of the improved support. Fig. 2 is a view similar to Fig. 1 with the top plate of the support removed. Fig. 3 is an elevation of the improved support, partly in section.

Referring to said drawings, which illustrate one embodiment of the invention, 1 indicates a wrapper-support, which may be of any suitable construction. As shown, it consists of a chambered casting, which is formed in one piece with, although it may be otherwise connected to, a cap 2, by which it is or may be secured to the means which carries it. The operating-face of this wrapper-support consists of a plate 3, on which the wrapper is placed and upon which it is retained by suitable devices. While the retaining devices which operate to hold the wrapper on the support or its operating face may be of any suitable character, the wrapper will preferably be held on the support by means of suction. In the construction shown the plate 3 is provided with a series of perforations 4, which are in direct communication with the chamber in the interior of the casting.

The wrapper-support may be mounted and operated in any suitable manner. As shown, the cap 2 of the support 1 rests on an outward-projecting flange 5 of a sleeve 6, said sleeve being mounted on a carrier-arm 7, which will be connected to any suitable part of the machine. Inasmuch as the construction of the carrier-arm and the parts to which it is connected are immaterial, except in so far as hereinafter described, this arm is shown as broken off.

The perforations 4 in the operating face of the support are in communication with any suitable suction-producing mechanism. As shown, the arm 7 is provided with a suction-channel, as indicated at 8, and the sleeve 6 is provided with slots 9. The channel in the arm 7 is connected in any suitable manner to suction-producing means, so that this arm and the sleeve form a suction-chamber. The cap 2 has an opening which registers with the open end of the sleeve, so that the chamber in the support or casting 1 is in open communication with the sleeve. As shown, the perforations 4 are arranged around the edge of the wrapper-support and extend across that end against which the extreme tip of the wrapper lies, these perforations being in di-

rect communication with the interior of the support. In the construction shown, however, the suction, acting through these perforations, holds the body of the wrapper, but does not hold the extreme tip of the wrapper.

In order to hold the extreme tip of the wrapper against the wrapper-support, a retaining means is provided which will act upon it when the main part of the wrapper is held on the support by suction, this retaining means also preferably employing suction, and in the preferred form of the construction the suction will be derived from the same source as that which is utilized through the perforations 4. While the means by which the suction is caused to act upon the extreme tip of the wrapper may be varied, as shown, a perforation 12, located near the extreme end of the support, is provided, and a short pipe 15 communicates therewith, said pipe being connected with the chamber in the interior of the casting. In the construction shown this pipe has its outer end located in the perforation 12 and terminates flush with the face of the plate 3. The outside diameter is, however, as shown, smaller than the inside diameter of the perforation. With the construction described it is apparent that when suction is established in the chamber in the casting 1 the wrapper will be held firmly on the support.

Suitable means are provided for forcing the tip of the wrapper away from the support against the action of the suction-retaining means. While these means may be of any suitable character, in the preferred form of the construction a blast mechanism will be employed for this purpose. This blast mechanism may be arranged to operate in any desired manner. As shown, the casting is cored out so as to provide a blast-chamber 10, which is in communication with a series of blast-orifices 11, and the blast also acts on the tip of the wrapper through the orifice 12, the space around the outside of the pipe 15 being utilized for this purpose. The blast through these orifices acts on the tip of the wrapper. The blast-chamber 10 communicates by means of a pipe 13 with a perforation 14, extending through the lower end of the sleeve 6, connection being made from this point to any suitable blast mechanism.

With the construction as before described it will be understood that the wrapper-support, by reason of the perforations 4 and the pipe 15, is provided with a suction-producing field, and by reason of the perforations 11 and 12 is provided with a blast-producing field, and that this blast-producing field is located within the suction-producing field. When the wrapper is to be presented to the wrapping mechanism, the blast is caused to operate through the perforations 11 and 12, and this blast will force the tip of the wrapper away from the support and against the action of the suction operating through the pipe 15. The wrapper will thus be held firmly against the face of the support up to the time when it is to be presented to the wrapping mechanism, and as the blast forces the tip away from the support it carries it down to the bunch immediately, so that there is no tendency of the tip to curl.

While the specific construction which has been described is particularly adapted for carrying the invention into effect, it is obvious that the details of construction may be varied widely. The invention is not, therefore, to be confined thereto.

What is claimed is—

1. The combination with a wrapper-support, of means for retaining a wrapper on the support, said means being arranged to operate on the tip and body of the wrapper, and means operating upon the under side of the tip to force it away from the support against the action of the retaining means, substantially as described.

2. The combination with a wrapper-support, of suction mechanism operating to retain the wrapper thereon, said mechanism being arranged to operate upon the body and tip of the wrapper, and means operating upon the under side of the tip of the wrapper to force it away from the support against the action of the suction mechanism, substantially as described.

3. The combination with a wrapper-support, of suction mechanism operating to retain a wrapper thereon, said mechanism being arranged to operate upon the body and tip of the wrapper, and a blast mechanism operating to force the tip of the wrapper away from the support against the action of the suction mechanism, substantially as described.

4. The combination with a wrapper-support provided with perforations underlying the body and tip of the wrapper, of suction-producing means in communication with said perforations, and means operating against the under side of the tip of the wrapper to force it away from the support against the action of the suction, substantially as described.

5. The combination with a wrapper-support provided with perforations underlying the body and tip of the wrapper, of suction-producing means in communication with said perforations, and a blast mechanism operating against the under side of the tip of the wrapper to force it away from the support against the action of the suction, substantially as described.

6. The combination with a wrapper-support provided with a suction-chamber and a blast-chamber, of perforations in the support underlying the body and tip of the wrapper, said perforations being in communication

with the suction-chamber, and perforations in the support underlying the tip of the wrapper, said perforations being in communication with the blast-chamber, substantially as described.

7. The combination with a wrapper-support provided with a suction-chamber underlying that part of the support which carries the body of the wrapper and a blast-chamber underlying that part of the support which carries the tip of the wrapper, of perforations in that part of the support underlying the body of the wrapper, the said perforations being in direct communication with the suction-chamber, perforations in that part of the support which carries the tip of the wrapper, said perforations being in direct communication with the blast-chamber, and a pipe connecting with the suction-chamber, said pipe leading to one of the perforations which are in communication with the blast-chamber, substantially as described.

8. The combination with a wrapper-support having a suction-chamber and perforations in communication therewith said perforations forming a suction-producing field, of a blast-chamber and perforations communicating therewith, said perforations forming a blast-producing field, and means whereby the suction is caused to act upon the wrapper within the blast-producing field, and simultaneously with the action of the blast substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

OLUF TYBERG.

Witnesses:
S. A. CHARPIOT,
FRANCIS M. HAZLETON.