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L. LIBERMAN

METHOD AND MEANS FOR CIGAR BUNCHING

Filed Nov. 16, 1921

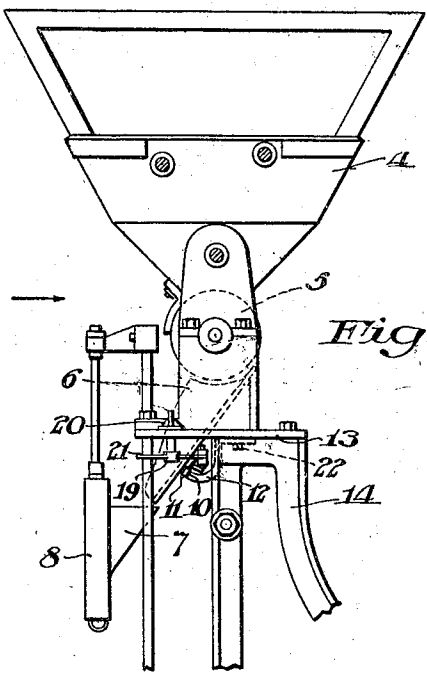


Fig. 1.

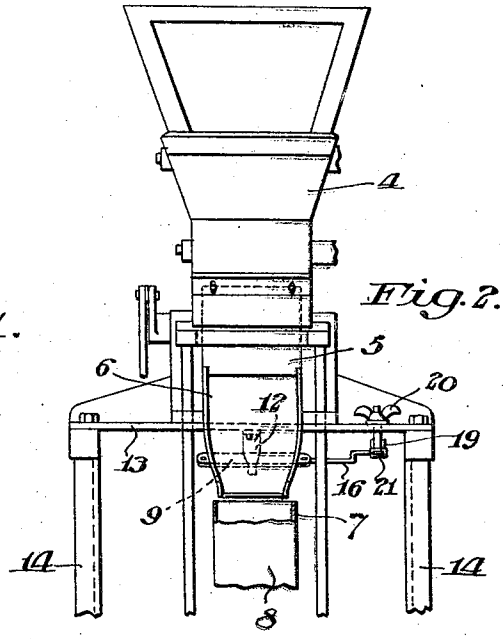


Fig. 2.

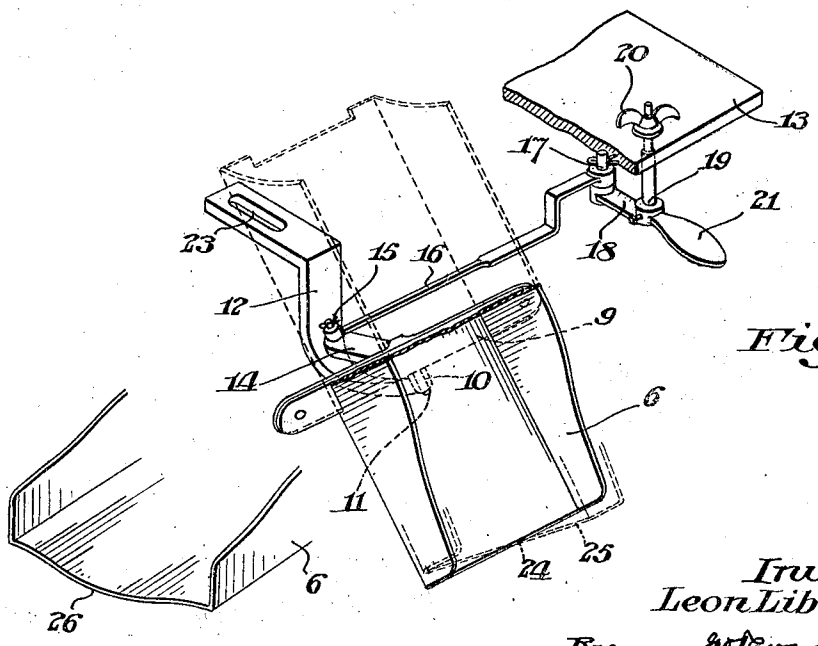


Fig. 3.

Fig. 3a

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UNITED STATES PATENT OFFICE.

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METHOD AND MEANS FOR CIGAR BUNCHING.

Application filed November 16, 1921. Serial No. 515,453.

To all whom it may concern:

Be it known that I, LEON LIBERMAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented a new and useful Method and Means for Cigar Bunching, of which the following is a specification.

My invention relates to cigar bunching. The object is to provide improved method and means for delivering the scrap forming the bunch in such relative proportions, as may be desired, along its extension. That is to say, when it is desired to form a cigar larger at one end than the other, or larger at an intermediate part than at either end, a greater quantity of scrap should be delivered to the pocket of the bunching apron at said point of greater dimension.

The invention is an improvement on the method and means described in the copending application of Bernard Liberman filed Nov. 24, 1920, Serial No. 426,184.

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

Fig. 1 is a side elevation.

Fig. 2 is a front elevation.

Fig. 3 is a fragmentary detail in perspective on an enlarged scale.

Fig. 3ª is a similar view of a modification.

Similar numerals refer to similar parts throughout the several views.

My invention is especially applicable to bunching machines having a hopper, such as 4, delivering to a rotating measuring element, such as 5, which delivers to a trough, such as 6, which in turn delivers to the funnel formation 7 of the conducting tube 8, which delivers the bunch forming filler to the bunching apron not shown.

As shown in my said pending application, a measuring device, such as 5, is provided with a pocket which receives a charge of filler from the hopper 4 and then rotates to deliver the charge to the trough 6. As originally arranged, this trough merely conducted the filler to the funnel formation 7 and thence through the tube 8 to the bunching apron. As the pocket in the measuring element is usually approximately of uniform dimensions throughout its extension, the charge of tobacco is evenly distributed, as it falls to trough 6 and passes through funnel 7 and tube 8. This would normally form a bunch for a cigar of substantially uniform dimension throughout its length. Where however, it is desired to form a cigar thicker at one end than the other, or thicker at some point intermediate its two ends, it is necessary to deliver a relatively greater quantity of filler or scrap to said point of greater dimension. For this purpose I have provided the following method and means for effecting said result.

I have mounted the trough 6 on a supporting bar 9. This bar 9 is provided at the middle part thereof with a pivot pin 10, secured to or engaging in the end 11 of the bracket 12. Bracket 12 is adjustably secured, by means of the bolt 22 and slot 23, to the horizontal formation 13 of the frame or table 14. The bar 9 is connected to trough 6 at about the middle part of the trough, so that said trough is pivotally supported on said bracket 12. The bar 9 is also provided with arm 14 extending from the middle part of said bar and at approximately right angles with the bar's extension. The outer end of this arm 14 is pivotally connected, as at 15, with one end of the connecting rod 16; the other end of said rod is pivotally connected, as at 17, with the lever 18 pivotally supported on the shaft 19, which shaft is secured to the table formation 13 in any suitable way, as for example, by the winged nut 20. Lever 18 is also operatively connected with the handle 21.

In operation:

It will be understood that when the lower edge 24 of trough 6 is in a horizontal position, there will be an even distribution of the scrap to the funnel formation 7 and the conducting tube 8. By operating the handle 21 in one direction or the other the trough 6 is tilted on its longitudinal axis, so that the lower edge 24 will be moved out of the horizontal position as indicated by the dotted line 25, Fig. 3. It will be understood that by this tilting movement one side of the edge 24 will be lowered, while the other side will be elevated, and obviously the body of the filler will move toward the lower side. The greater the degree of such tilting movement the greater will be the relative lateral movement of scrap carried to said lower side and hence to the corresponding end of conducting tube 8, so that, depending upon whether the right hand or the left hand side of the trough is lowered, there

will be a corresponding increase of material toward the right hand or left hand side of funnel 7 and tube 8. If the tilting is slight, the preponderance of material toward one end or the other will be slight. If the tilting is greater the preponderance will be correspondingly greater.

If it is desired to have the preponderance of filler at or near the middle of the bunch extension, the middle part of the lower end or edge of the trough is provided with a concave formation, as at 26 in Fig. 3ª. With this formation, it will be obvious that by tilting the trough as above described, the preponderance of filler will be shifted to one side or the other of its middle line, so that the cross-sectional dimension of the bunch will be greater to one side or the other of the middle of its extension, and not at its extreme end. This point of preponderance and the degree of said preponderance may accordingly be controlled by the degree of tilting of the trough.

It will thus be seen that by the method and means above described, it is possible arbitrarily to control the approximate point, along the entire extension of the bunch, where the preponderance of filler will be delivered.

What I claim is:—

1. In the operation of cigar bunching, the method which consists in receiving and separating from a supply, a measured charge of filler, and in conducting said measured charge in such a manner as to direct a preponderance of filler to a given point in the longitudinal extension of the bunch.

2. In the operation of cigar bunching, the method which consists in receiving and separating from a supply, a measured charge of filler, and in causing a flow by gravity of said measured charge so that a preponderance of filler will be delivered to a required point in the longitudinal extension of the bunch.

3. In a cigar bunching machine, the combination of a measuring device for receiving and separating from a supply, a measured charge of filler, a trough for receiving and conducting the filler discharged by the measuring device, and means for tilting the trough in order to discharge a preponderance of the charge toward one side thereof.

4. In a cigar bunching machine, the combination of a measuring device for receiving and separating from a supply, a measured charge of filler, a trough for receiving and conducting the filler discharged by the measuring device, means for pivotally supporting the trough and means for arbitrarily rocking the trough on its pivot support.

5. In a cigar bunching machine, the combination of a measuring device for receiving and separating from a supply, a measured charge of filler, an incline trough for receiving and conducting the filler discharged by the measuring device, and means for tilting the trough in order to discharge a preponderance of the charge toward one side thereof.

6. In a cigar bunching machine, the combination of a measuring device for receiving and separating from a supply, a measured charge of filler, a trough for receiving and conducting the filler discharged by the measuring device, means for pivotally supporting the trough and means, including a pivotally mounted hand lever, for arbitrarily rocking the trough on its pivot support.

7. In a cigar bunching machine, the combination of a hopper, a rotating measuring device for receiving measured charges of filler from the hopper and for delivering said measured charges, conducting means for said delivered charges, including a movably mounted inclined trough and hand operated means for tilting said trough to cause a preponderance of filler to shift toward one side of the trough in its travel therethrough.

LEON LIBERMAN.