

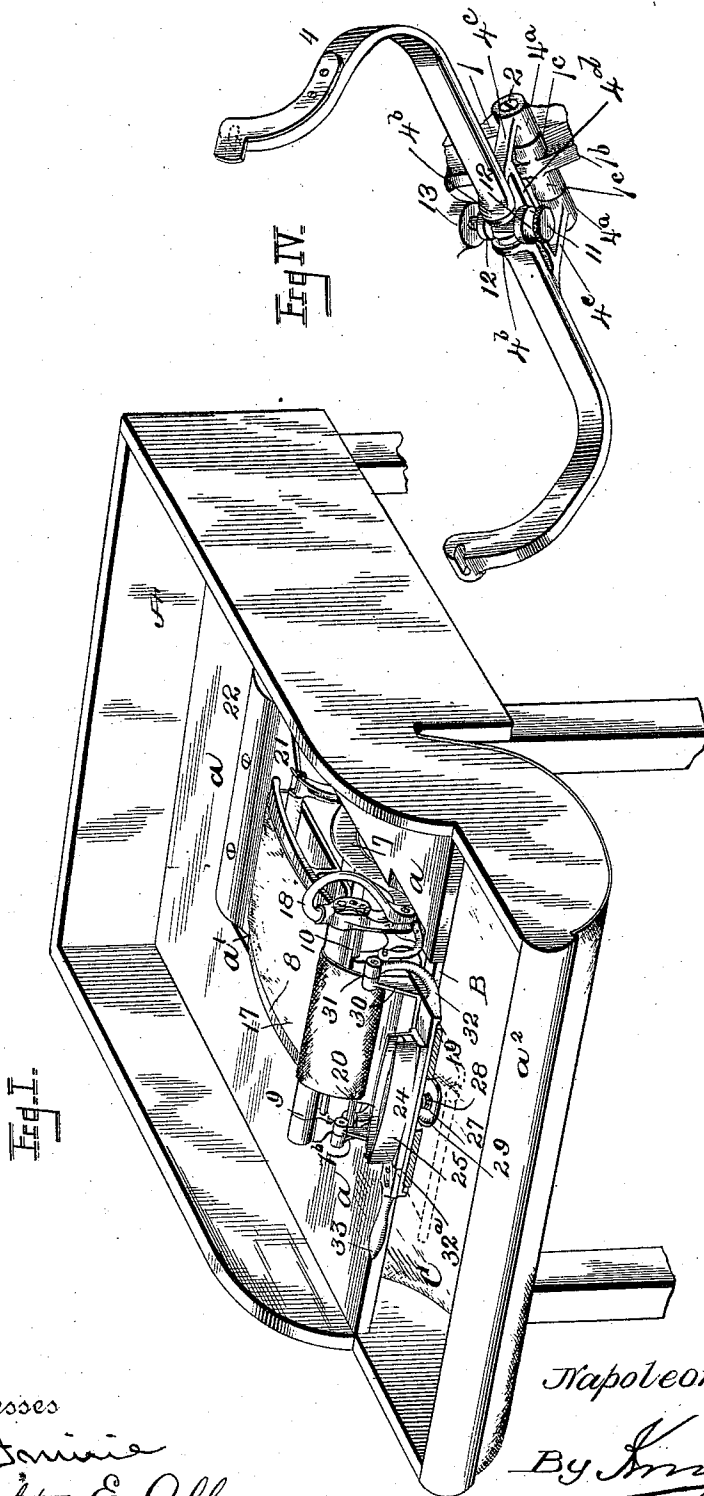
(No Model.)

3 Sheets—Sheet 1.

N. DU BRUL.
CIGAR BUNCHING MACHINE.

No. 574,403.

Patented Jan. 5, 1897.



Witnesses
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(No Model.)

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Fig. II.

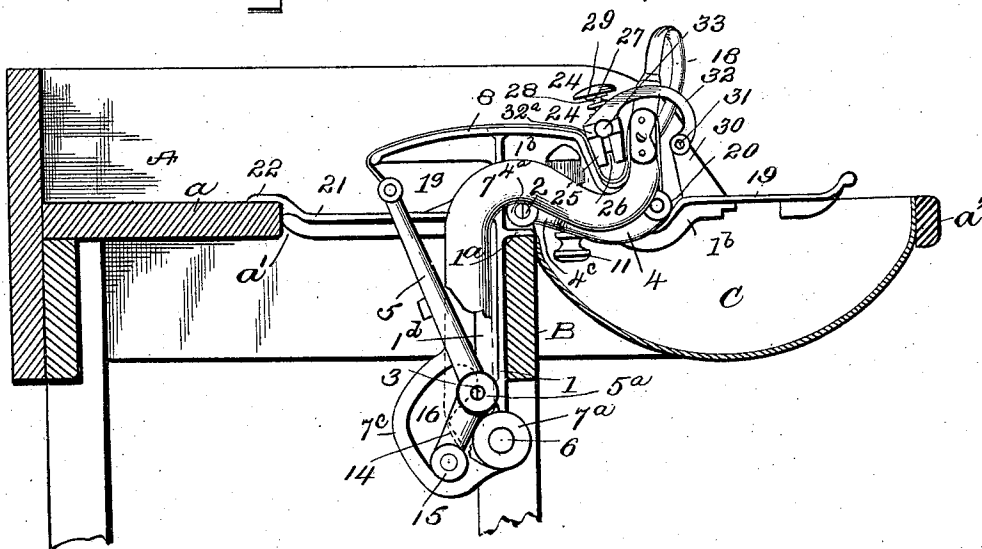


Fig. III.

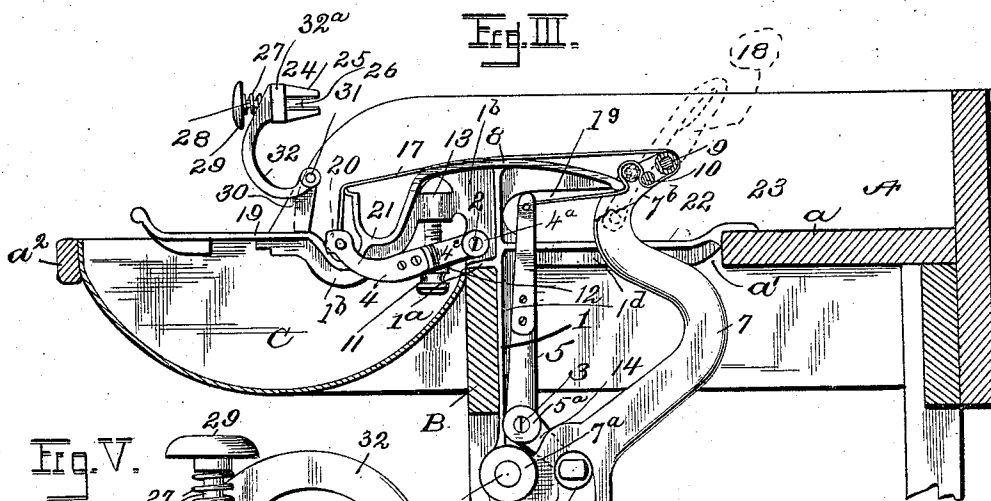
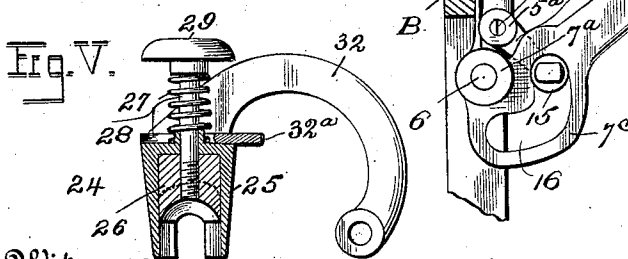


Fig. V.



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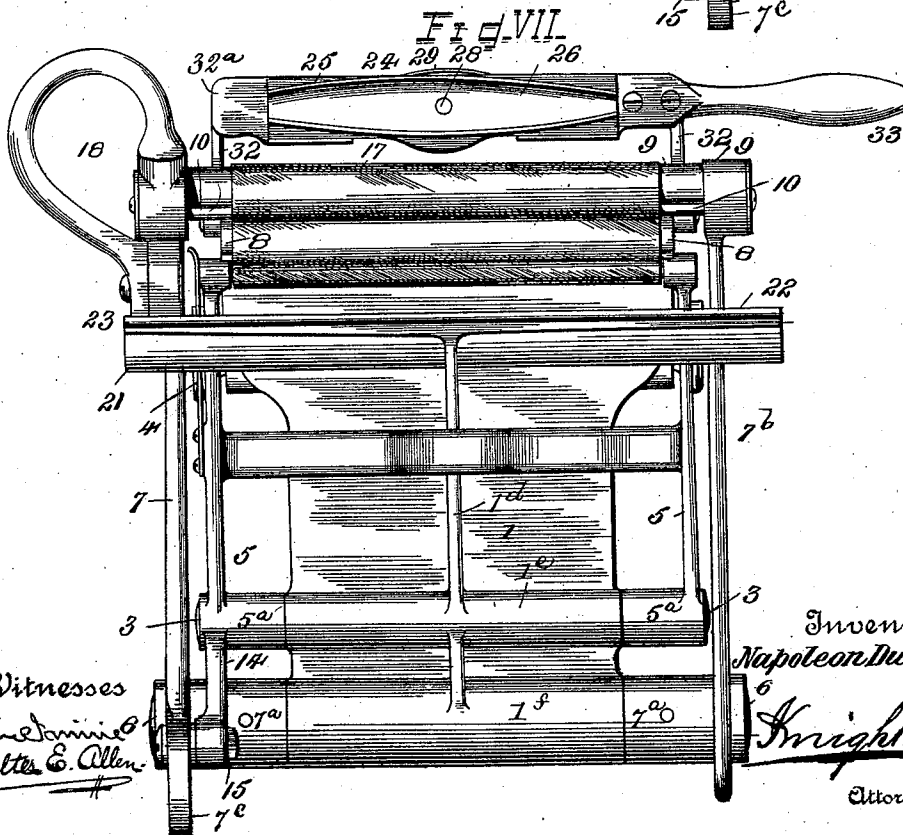
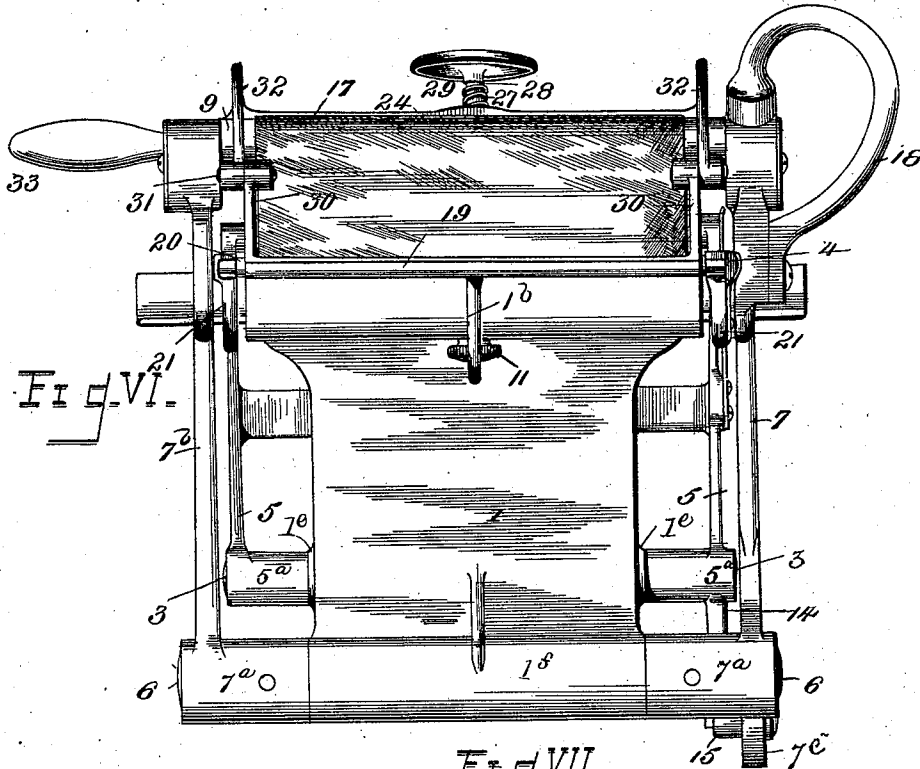
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3 Sheets—Sheet 3.

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UNITED STATES PATENT OFFICE.

NAPOLEON DU BRUL, OF CINCINNATI, OHIO.

CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 574,403, dated January 5, 1897.

Application filed March 9, 1894. Serial No. 503,020. (No model.) Patented in England March 29, 1894, No. 6,330.

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-Bunching Machines, (for which I have obtained a patent in Great Britain, No. 6,330, bearing date March 29, 1894,) of which the following is a specification.

My invention relates to a cigar-bunching machine which may be operated by hand and which is made of convenient form and dimensions for such operation and for ready application to and removal from a cigar-maker's table.

My improvements consist in certain novel features in the construction of such a machine whereby is produced a cheap and durable structure adapted for convenient operation by hand without losing any of its effectiveness in operation, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a perspective view of my improved cigar-bunching machine applied to a cigar-maker's table, the bunching-roller levers being shown in normal position. Fig. II is a vertical longitudinal section of the table, showing an elevation of the machine, looking at it from the left-hand side of the table. Fig. III is a vertical longitudinal section of the table, showing an elevation of the machine, looking at it from the right-hand side of the table, the bunching-roller levers being thrown over, the handle of the right-hand lever being broken away and its position indicated in dotted lines, and the bunching and guide rollers being shown in section. Fig. IV is a detail perspective view of the front apron-holder and its connection with the central plate. Fig. V is a sectional view of the charger. Fig. VI is a front elevation of the machine, the levers being shown in normal position and the charger in the act of delivering the bunch into the pocket of the apron. Fig. VII is a rear view of the machine, the charger being raised and the levers being thrown over.

As will be seen, the construction of my cigar-

bunching machine is such that by simply cutting an opening a' of the proper size in the front of the top a of a cigar-maker's table the machine is readily applicable to the table when properly applied, a transverse central bar or rail B beneath the table-top affording the main or it may be the entire support of the machine.

C is the scrap-receptacle, located between the central bar and the front bar a^2 of the table.

The main frame of the machine is cast integral, and comprises a transversely-arranged central plate 1, formed with a horizontal flange 1^a , adapted to seat on the central bar B, with a strengthening front upper rib 1^b , having a horizontal bearing-sleeve 1^c , and a vertical screw-socket 13, with a strengthening rear lower rib 1^d , having a horizontal bearing-sleeve 1^e , with a horizontal bearing-sleeve 1^f , located at the bottom of the central plate, with a rear shelf 22, having an offset 23 fitting the table-top, with a rolling-table 8 projecting rearwardly over the rear shelf, providing in connection therewith a receptacle 1^s for the bar of the rear apron-holder, with an apron-pocket receptacle 21 located in front of the table, with a receptacle 20 for the bar of the front apron-holder, and with a front shelf 19.

Extending through the upper bearing-sleeve 1^c is a pivot pin or rod 2. To the projecting ends of this pivot pin is fulcrumed by means of its sleeves or boxes 4^a the front apron-holder 4. Through the lower bearing-sleeve 1^e is passed a pivot pin or rod 3, to the projecting ends of which is fulcrumed by means of its sleeves or boxes 5^a the rear apron-holder 5.

7 7^b are bunching-roller levers having sleeves or boxes 7^a , by which they are connected with the shaft 6, extending through the bottom bearing-sleeve 1^f .

The front and rear apron-holders are each formed as usual with two main arms for supporting the apron-rods, the rods being located in the apron-rod receptacles. The bunching-roller levers carry at their upper ends the usual guide-roller 9 and bunching-roller 10, around which the apron passes, as shown. The front apron-holder, however, is provided with an improved means of adjustment consisting of the milled screw 11, which is formed

with upper and lower flanges 12, bearing above and beneath the lateral projections 4^b in front of the short arms 4^a, which are connected by cross-bar 4^d. The screw is threaded into the screw-socket 13 beneath the table. I adjust the apron to the size of the bunch to be made and depend on its elasticity for unevenness in the bunch.

The rear apron-holder, which draws upon the apron to prevent wrinkling thereof, is provided with a short arm 14, carrying an antifriction-roller 15, which plays in a properly-formed cam-slot 16 in the enlargement 7^a of the box 7^a of the lever 7, so that when the levers are at their forward limit the rear apron-holder is rocked backward through the cam-slot connection with the lever 7 and the apron is sufficiently relaxed to form the bunch-pocket in the apron at 17. The actuating cam-slot connection is shown on the right-hand side of the machine, though obviously it may be on either, and the lever on this side has an ear-shaped handle 18 projecting from the upper end thereof and curved outwardly and downwardly to the lever again. In Fig. II the lower end of the left-hand lever is broken away to disclose the inside of the cam-slot connection, and in Fig. III the upper end of the right-hand lever and its handle are broken away to disclose parts behind and indicated in dotted lines. The levers are so constructed in shape that they always remain behind the bar B of the table, and thus avoid interference with the scrap-receptacle at the front of the table. On the front shelf 19 may be kept the pieces of leaf for use, as the binder or the filler may be brought upon it before it is put into the shaping-mold and then from the mold into the apron-pocket to be rolled. The front-bar receptacle 20 provides ample room for the adjustment of the front apron-holder. The rear shelf is placed low enough to admit the operator's hand beneath the rolling-table to catch the bunch as it drops.

In connection with the machine I employ a shaping and charging gage 24, which consists of a cup 25 for gaging the fillers, and so mounted that it may be inverted over the apron-pocket to deliver the filler thereinto for rolling. The cup has an ejecting-plunger 26, forming its bottom and is held normally seated therein by a spring 27, surrounding the stem 28, which carries a pressure-knob 29, through which the plunger is manipulated. The gage is pivoted upon the front of the machine and swings over the front apron-bar receptacle into the pocket, and as a convenient means for carrying out this I provide standards 30 on the front shelf 19, and to them I journal, by means of a pin 31, the curved arms 32 of a frame, upon the cross-bar 32^a of which is detachably secured the charger and gaging-cup 25. It is intended that there shall be a number of these cups 25, graduated in size to correspond with the shape of the cigar to be made and made interchangeable in at-

tachment to the cross-bar 32^a of the charger-frame.

33 is a handle which projects from the frame 33 on that side of the machine opposite to the lever-controlling handle 18.

From the form of the main frame it will be seen that the whole machine might be supported upon the bar B by means of the central plate and its horizontal flange by simply attaching said plate to said bar, but the machine as applied to the table is partly supported by the rear shelf 22, having the offset or shoulder 23 fitting the top of the table, leaving the main support, however, upon the bar B.

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

1. In a cigar-bunching machine, the combination of a rolling-table having a concavity therein, a bunching-apron, a pivotally-supported tension-frame supporting one end of said apron, means for causing the tension-frame to swing to relax the apron as the bunching-roller assumes its normal or inoperative position and a crank-arm secured to the journal of the tension-frame, with a pivotally-supported shaping-frame carrying a bunching-roller, and a cam secured to the journal of said shaping-frame adapted to operate the tension-frame to tighten the apron through the medium of the crank-arm as the bunch is being rolled.

2. A cigar-bunching machine comprising a main frame formed with a transversely-arranged central plate, with a rolling-table located at the top of the central plate, with an apron-pocket receptacle at the front of the table, with an apron-bar receptacle in front of the apron-pocket receptacle, with a front shelf, and with a shelf extending rearwardly from the plate beneath the rolling-table, the front apron-holder fulcrumed to the plate beneath the table and adjustably connected with the table, the rear apron-holder fulcrumed to the rear side of the plate having an apron-bar occupying the pocket between the rear shelf and the table, and a short arm, and the levers hinged to the bottom of the central plate having bunching and guide rollers; one of the levers being provided with an enlargement, at its pivot portion, formed with a cam-slot through which the short arm of the rear apron-holder projects; substantially as described.

3. The combination of a cigar-maker's table having a top formed with a central opening, a scrap-receptacle in front of the top, a transverse bar located in rear of the scrap-receptacle beneath the opening, and a cigar-bunching machine comprising a main frame formed with a transversely-arranged central plate having a horizontal flange seating on the bar with a rolling-table located at the top of the central plate, and extending on both sides thereof, with an apron-pocket receptacle at the front of the table, with an apron-bar re-

ceptacle in front of the apron-pocket receptacle, with a front shelf, and with a shelf extending rearwardly from the plate beneath the rolling-table, the front apron-holder fulcrumed to the plate beneath the rolling-table, and adjustably connected with the rolling-table, the rear apron-holder fulcrumed to the rear side of the plate having an apron-bar occupying the pocket between the rear shelf and the rolling-table and a short arm, and the levers hinged to the bottom of the central plate, having bunching and guide rollers; one of the levers being provided with an enlargement at its pivot portion, formed with a cam-slot through which the short arm of the rear apron-holder projects; substantially as described.

4. A cigar-bunching machine comprising a transversely-arranged central plate, having a rolling-table at the top thereof, a front upper rib provided with a horizontal bearing-sleeve, and a vertical screw-socket, a pivot-pin projecting through the sleeve, the apron-pocket receptacle in front of the table, the apron-bar receptacle in front of the apron-pocket receptacle, the front apron-holder formed with boxes secured to the ends of the pivot-pin, with short arms connected by a cross-bar,

with lateral projections located in front of the cross-bar and with main arms extending beneath the apron-pocket receptacle carrying an apron-rod within the apron-rod receptacle, and the screw threaded into the screw-socket, having upper and lower flanges located above and below the lateral projections; substantially as described.

5. A cigar-bunching machine comprising a rolling-table, an apron-pocket receptacle in front of the rolling-table, an apron-bar receptacle in front of the apron-pocket receptacle, a front shelf, the standards on the front shelf, the charger-frame having curved arms pivoted to the standards carrying a cross-plate, and extending over the apron-bar receptacle and into the apron-pocket receptacle, the charger and gaging-cup detachably secured to the cross-bar, the ejecting-plunger within the cup having a stem, the spring for seating the plunger, surrounding the stem, and the pressure-knob secured to the stem; substantially as described.

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Witnesses:

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