

(No Model.)

2 Sheets—Sheet 1.

N. H. BORGFELDT.
CIGAR BUNCHING MACHINE.

No. 529,891.

Patented Nov. 27, 1894.

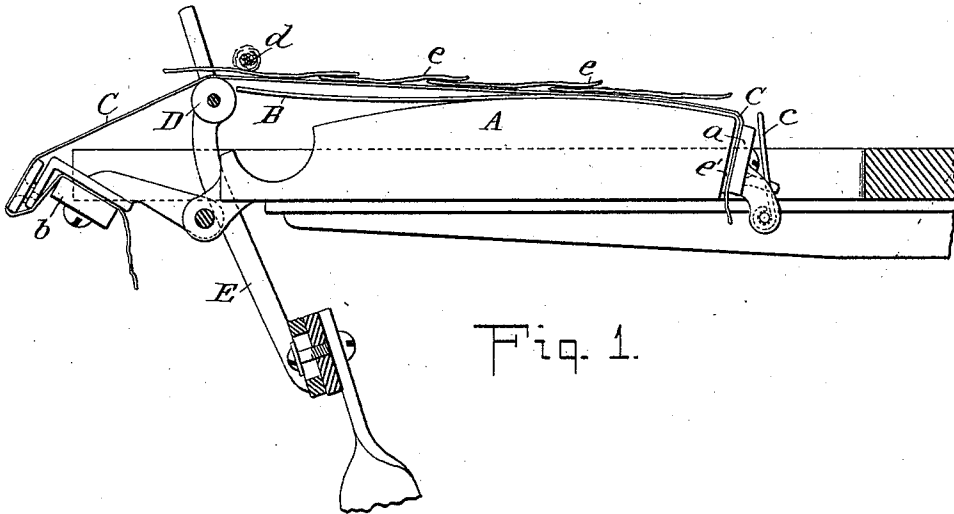


Fig. 1.

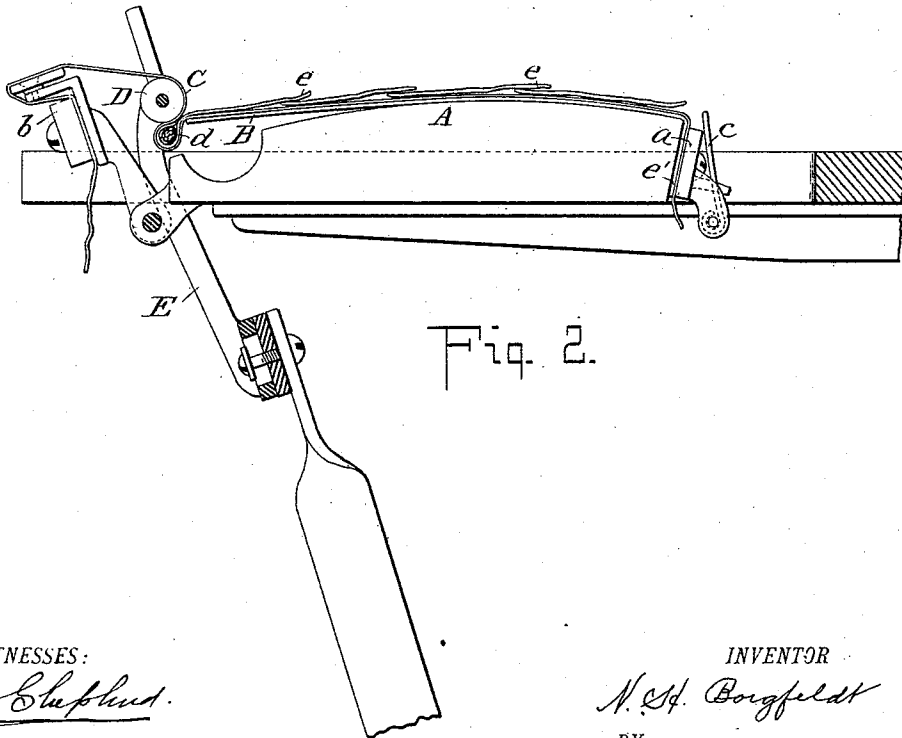


Fig. 2.

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ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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CIGAR BUNCHING MACHINE.

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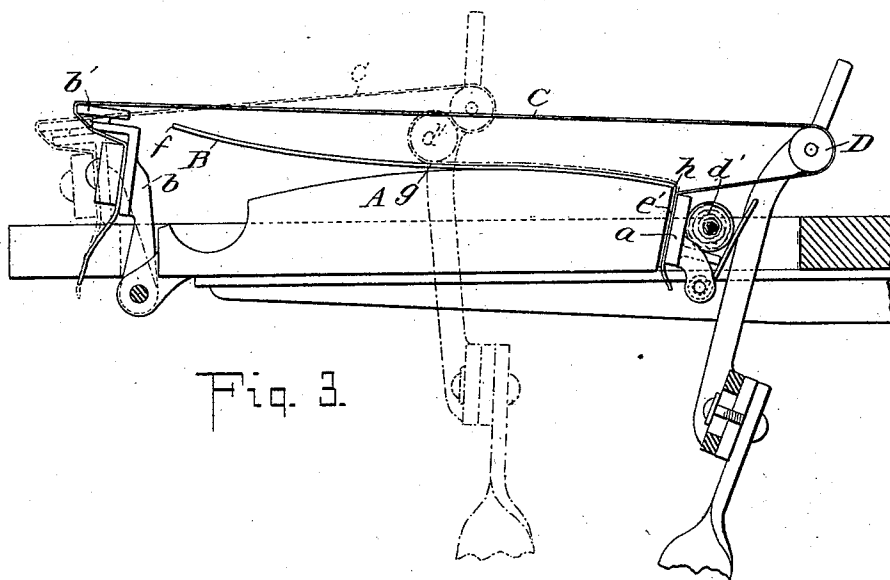


Fig. 3.

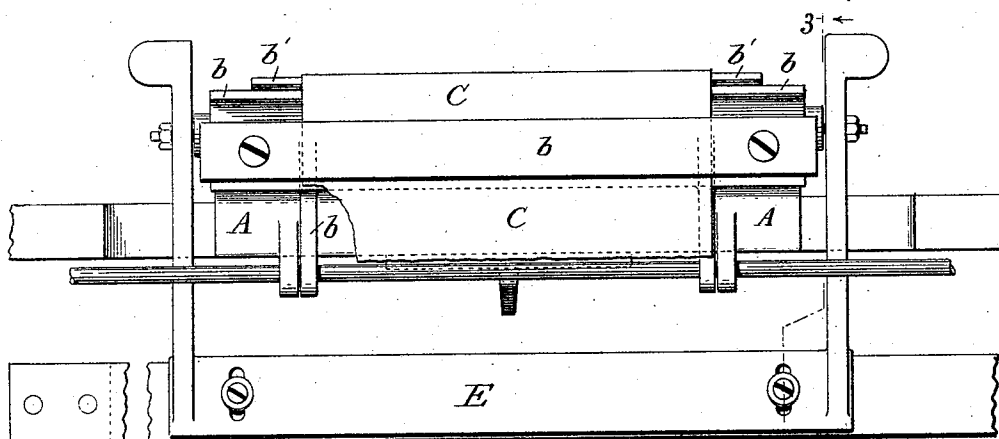


Fig. 4.

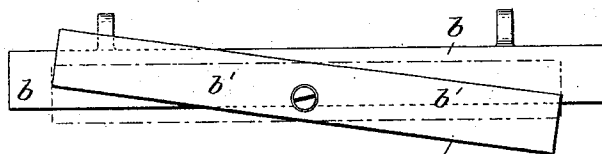


Fig. 5.

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UNITED STATES PATENT OFFICE.

NICHOLAS H. BORGFELDT, OF BROOKLYN, NEW YORK.

CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 529,891, dated November 27, 1894.

Application filed January 15, 1894. Serial No. 496,840. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS H. BORGFELDT, a resident of Brooklyn, Kings county, State of New York, have invented an Improved Cigar-Bunching Machine, of which the following is a specification.

My invention relates to cigar bunching machines, and has for its object to produce a machine which will form tobacco into bunches commonly known as the Spanish made bunch, that is to say, a bunch made with a core (the core being the center of the bunch and consisting of a few straight pieces of filler arranged in the hand) and well opened pieces of filler of the right length rolled around this core until the proper size and shape are attained. This is the method of making Spanish made bunches by hand. Such Spanish made bunches are well known in the trade and have the advantage that the free and regular burning as well as the quality are improved.

In the drawings, forming part hereof,—Figure 1 is a sectional side elevation of a machine embodying my invention. Fig. 2 is a similar view of the same machine showing the parts in a slightly different position. Fig. 3 is another view showing the same parts in two different positions, one in full lines and the other in dotted lines, the sections in every instance being taken on line 3—3 of Fig. 4, looking in the direction of the arrows. Fig. 4 is a front elevation of the same machine, the parts being in the position shown in full lines in Fig. 3. Fig. 5 is a top view of a detail presently to be described, showing the parts in two different positions.

In the drawings A represents a rolling board of any suitable or preferred construction which I will designate as a stationary rolling board for purposes of clearness. To this rolling board is attached by one of its ends *e'* an elastic or flexible plate B which is preferably made of metal and forms the rolling board proper. One end of the rolling board proper B projects to a horizontal plane higher than that in which the board receives its support, as will be more fully hereinafter set forth. Over this plate or rolling board is attached the usual apron C which is fastened to one end of the rolling board in any suit-

able manner, as by a clamp *a*, and at its other end is secured in a weighted clamp *b* which is preferably pivoted to the stationary rolling board A.

Under the apron C is the usual bunching roller D carried by a pivoted roller frame E. The pivots of this roller frame E are so located with respect to the elastic or flexible plate B, that when the bunching roller is in the position shown in Figs. 1 and 2, the same will be nearer the surface of the plate than when it is in the two positions shown in full and in dotted lines in Fig. 3. This arises from the fact that the roller frame being pivoted, the bunching roller D traverses an arc while the plate B is substantially level for a portion of its length, say, for instance, between the points *f* and *g* and between the points *g* and *h*, being concentric to the path described by the bunching roller. The rolling boards are provided at one end with a bunch receiver *c* as shown. This bunch receiver may be of any ordinary construction.

The operation is as follows: Upon the surface of the apron well opened out tobacco leaves *e* of proper length for the bunch to be made, are spread, and over the free end of the plate a core *d* is placed consisting of straight tobacco pieces to form the center of the bunch. This is the position of Fig. 1. The workman then presses down upon this core, and depressing the free end of the plate or elastic rolling board B allows a loop or bight to be formed in the apron C, as shown in Fig. 2, the pivoted weighted clamp *b* serving by its weight to hold the apron taut. The bunching roller is now moved forward over the plate and the free end of the plate pressing firmly thereon serves to roll the core and the surrounding leaves with proper tension. As the bunching roller passes along the plate to the position shown in dotted lines in Fig. 3, its path departs farther and farther from the plate B and enlarging the loop in the apron and allowing thereby the gradual thickening of the bunch while rolled toward the middle thereof. Therefore a bunch is produced with a core and surrounded with leaves of filler tobacco. The bunching roller passes on to the position shown in full lines in Fig. 3, and delivers the completed bunch *d'* to the bunch

receiver *c* where it is held until removed by the operator. The roller may now be carried back to its initial position as shown in Fig. 1, and the operation repeated.

- 5 In order to permit the apron to accommodate itself to irregularities in the shape of the bunches, I provide one clamp, preferably the pivoted weighted clamp *b*, with a pivoted cross-bar *b'* whose edge *b²* serves as a bearing
10 for the apron.

It will be obvious that if the bunch is thicker at one end than at the other, there will come a greater strain upon one side of the apron than upon the other, which will have the effect of swinging the pivoted cross-bar, allowing one side of the apron to become slacker, and tightening the other side to accommodate the shape of the bunch.

I do not limit myself to the specific construction and arrangement herein shown, as it is obvious that the device may be greatly varied without departing from the spirit of my invention.

I am aware that cigar bunching machines have been constructed heretofore in which a non-flexible rolling-board was spring supported, and such device I do not claim, but

What I do claim, and desire to secure by Letters Patent, is—

- 30 1. In a cigar bunching machine, the combination of a flexible rolling board the forward end of which normally projects to a horizontal plane higher than that in which the board receives its support, an apron and
35 a bunching roller co-operating therewith, substantially as described.

2. In a cigar bunching machine, the combination of a flexible rolling board the forward end of which normally projects to a
40 horizontal plane higher than that in which the board receives its support, an apron and a bunching roller co-operating therewith, all of said parts being so arranged with relation to each other that the bunching roller will
45 traverse a path gradually departing from the surface of said rolling board, the bunching roller being nearest at the beginning of its movement, substantially as described.

3. In a cigar bunching machine, the combination of a pivoted roller frame carrying a bunching roller, a flexible rolling board the forward end of which normally projects to a horizontal plane higher than that in which the board receives its support and which is traversed by the bunching roller, said roller being nearest said rolling board at the beginning of its movement, and an apron co-operating with the rolling board and roller, substantially as described.

4. In a cigar bunching machine, the combination of a rolling board consisting of a suitably mounted flexible plate rigidly attached to a suitable support at one end the forward end of which normally projects to a horizontal plane higher than that in which the board receives its support, a bunching roller traversing said plate, and an apron co-operating with the plate and roller, substantially as described.

5. In a cigar bunching machine, the combination of a flexible plate secured at one end to form a rolling board the forward end of which normally projects to a horizontal plane higher than that in which the board receives its support, a bunching roller so located with relation to the plate as to bear upon one end thereof at the beginning of the movement of said roller and departing gradually from the plate as it continues to move to the middle, whereby the pressure between the plate and bunching roller gradually diminishes, together with an apron co-operating with the plate and roller, substantially as described.

6. In a cigar bunching machine, the combination with an apron and means for holding the ends thereof, of mechanism for adjusting the tension of the same, consisting of a centrally pivoted cross-bar, arranged transversely to and having its edge bearing against the apron, whereby the tension thereon may be made to accommodate itself to the shape of the bunch.

NICHOLAS H. BORGFELDT.

Witnesses:

GEO. E. MORSE,
HARRY M. TURK.