

(No Model.)

C. ALBERT & F. RATHKAMP.
CIGAR BUNDLING MACHINE.

No. 454,246.

Patented June 16, 1891.

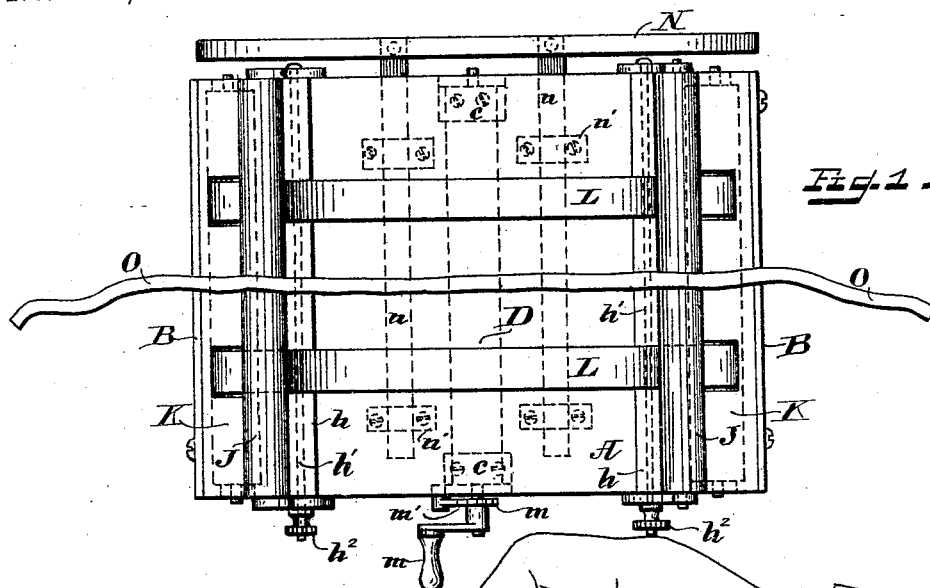


Fig. 1.

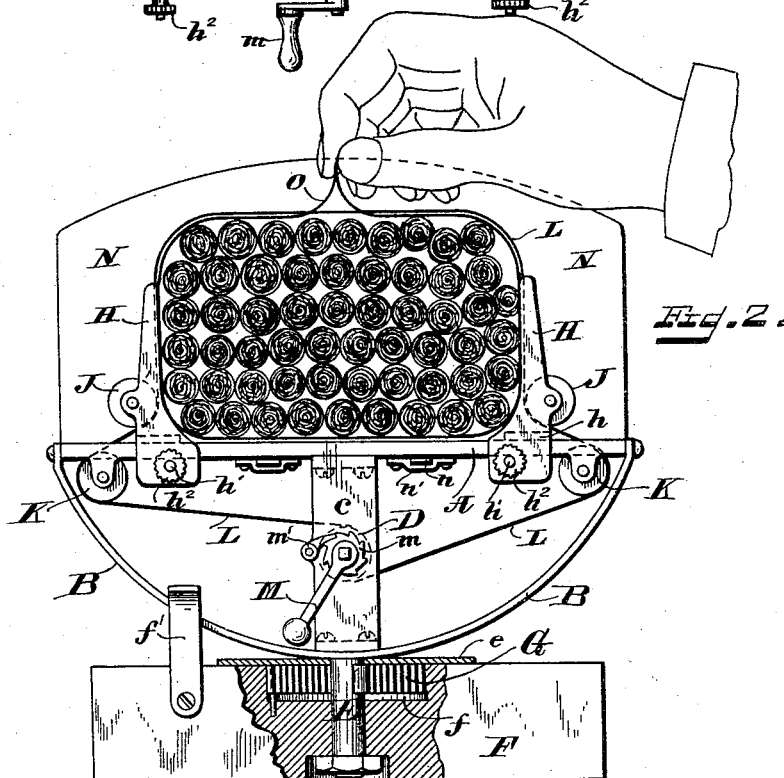


Fig. 2.

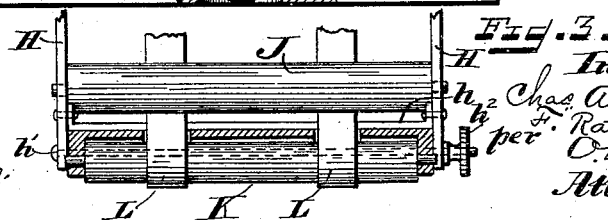


Fig. 3.

Witnesses

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CHARLES ALBERT AND FREDERICK RATHKAMP, OF CINCINNATI, OHIO.

CIGAR-BUNDLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 454,246, dated June 16, 1891.

Application filed February 11, 1891. Serial No. 381,018. (No model.)

To all whom it may concern:

Be it known that we, CHARLES ALBERT and FREDERICK RATHKAMP, both citizens of the United States, and residents of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Cigar-Bundling Machines, of which the following is a specification, reference being had to the accompanying drawings.

The object of our invention is to provide a machine for quickly and securely bundling cigars in position to be securely tied with a ribbon, as will more fully hereinafter appear.

In the accompanying drawings, Figure 1 is a top view of our improved machine for bundling cigars. Fig. 2 is a front elevation of the machine (shown in Fig. 1) with a bundle of cigars in position, compressed, ready to be tied with the ribbon, a portion of the base or standard being broken away to show one mode or means employed for rotating the machine and bunch of cigars to twist said ribbon. Fig. 3 is a section taken through the end of the table just in front of the stationary guide-rollers, showing the preferred mode of connecting the upright gages to said table.

Our improved cigar-bundling machine as preferably constructed consists of a table A, supported by means of a base B, the latter being preferably formed of sheet metal, bent as shown, the ends of said base being screwed or otherwise suitably connected to the end portions of said table, as shown.

At each side the table, and near or at the center of base B, are secured two upright supports C, having flanged extensions at each end, the latter being connected to said table and base, as more clearly shown in Fig. 2. These supports add rigidity to the center of the base, and also serve for bearings in which the spindles of drum D may rotate.

Near the center of base B is connected in any suitable manner a spindle E, which latter projects through a plate or washer e, on the top of support F, the top portion of said latter support having a reamed or counter-sunk opening *f* centrally therein, in which opening is a coiled spring G, the latter being

connected at one end to the spindle E and at the other end connected to one side of said opening *f*. If desired, this spring G may be omitted; but for the purpose hereinafter set forth it is preferred to use this spring or an equivalent device.

To the support F is pivoted a catch *f'*, or equivalent device, for retaining the base B in a non-rotatable position on said support when not desired to twist the ribbon, and to disengage said parts when desired that said ribbon should be twisted, all of which will be set forth in the operation hereinafter to be described.

The upright gages H are retained in an adjustable position at the sides of the table A by means of cross-strips *h* and rods *h'*, said strips being connected to said gages and rest upon the top face of said table, while the rods *h'* pass through the lower portion of said gages beneath the table, as shown, said rods having a set-nut *h²* at one end thereof to tighten the gages to place on the table after being properly adjusted thereon.

Between the upright gages H, and journaled therein, are the guide-rollers J, corresponding stationary rollers K being journaled to suitable supports beneath the table A near each end thereof. These rollers J and K serve as guides on which the bands L rest, the free ends of said bands being connected to the drum D in such a manner as to be wound thereon in one direction. This drum is provided with a suitable crank M, having the usual ratchet *m* and pawl *m'* for retaining said drum in a non-rotatable position when the bands L are tightened around a bunch of cigars. The bands L are preferably made of thin sheet brass, and when not compressed around the cigars they assume a loop-shaped configuration, permitting the operator to place the cigars on the table between the gages H and beneath said bands; but, if desired, said bands may be made of any other suitable material.

To the rear side of table A is secured the vertical back piece N, which latter is adjustably connected to said table in any suitable manner. In the present instance said back

piece is shown adjustably connected to said table by means of the extensions *n*, which pass through suitable staples *n'*, made fast to the bottom of table A. The purpose of this adjustable back is to accommodate varying lengths of cigars.

Having described the preferred construction of our improved machine for bundling cigars, we will now describe its operation. The operator first lays the ribbon O out at full length on the center of the table between the compression-bands L, as shown in Fig. 1, after which the cigars are laid on said ribbon and piled one on top of the other between the gages H until the requisite number of cigars are placed therein. The operator now takes hold of the crank M and turns it in proper direction to cause the bands L to inclose and compress the cigars in a compact bundle, the pawl and ratchet serving to retain said bands tightly compressed around the bundle until said pawl is disengaged. Having compressed the bundle of cigars to the proper degree of pressure the operator grasps the two ends of the ribbon between his thumb and forefinger, as shown in Fig. 2, at which time he disengages the catch *f'* or equivalent device, and the entire table, base, and bundle of cigars are made to rotate on the support F, through the medium of spring G, the latter having been first wound up, and the said revolutions of the cigar bunch cause the ribbon to rapidly twist while the operator holds the free ends thereof. So soon as the table and bunch of cigars stop rotating, the operator tucks the twisted ends under the body of the ribbon between two cigars, when the operation of bundling is completed. If the spring G be omitted the operator twists the ribbon by holding in one hand the free ends thereof and with the other hand rotates said table on which the cigars are bunched; but it is preferred to use the spring for this purpose.

The different sizes of bundles are regulated by means of the gages H, which may be made to slide back and forth on the table until the required compartment is formed, at which time they are made fast to said table by means of rods *h'* and set-nuts *h''*. The different lengths of cigars is accommodated by means of the adjustable back N. The spring G is wound up by swinging the top portion of catch *f'* out of line with base B, at which time said base and its table are free to be rotated as many turns as desired to properly wind said spring, and having properly wound the spring the same is retained in that position by swinging the catch *f'* back into line with the base B, said catch preventing any backward rotation of the base and its table. As shown in Fig. 2, this catch is pivotally connected at its lower end portion to base-support F, the top portion of said catch being free to swing into and out of line with base B.

The advantages of our improved cigar-bun-

dlers are apparent. It is cheap of manufacture, simple and effective in operation, and does not require skilled labor to manipulate it. The rollers J, mounted on the adjustable gages H, dispense with the use of any extra interchangeable filling-pieces to accommodate varying sizes of bundles, which is required in various old devices used for this purpose, and is a source of much annoyance and loss of time.

In cigar-bundling machines now commonly in use and provided with adjustable gages (but without the guide-rollers thereon) it is absolutely necessary to provide the aforementioned filling-piece as a base on which the cigars rest, said piece serving to shape the bundle, and also serving to prevent the compression-bands from too tightly compressing the bottom layer of cigars, as said bands (in the old method) rest against the side edges of said filling-piece. By passing the compression-bands around the stationary rollers K and rollers J on the adjustable gages, as shown in Fig. 1, we are enabled to dispense with the aforesaid filling-pieces, as aforesated.

The rotatable feature of our invention, taken in connection with the other features herein set forth, go to make up a superior machine for the manipulating, bunching, and tying of cigars.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a cigar-bundling machine, the table A, having gages H, adjustably connected thereto, rollers J, connected to said gages, rollers K, suitably connected to brackets connected to said table, bands L, and drum D, said bands impinging against said rollers J and K and having their free ends connected to said drum, and suitable means for rotating the latter, for the purposes specified.

2. In a cigar-bundling machine, the table A, mounted on the base B, with suitable supports C between them, gages H, adjustably connected to said table and carrying guide-rollers J, rollers K, connected to said table, drum D, journaled in the supports C, and bands L, passing partially around said rollers and connected to said drum, in combination with support F and a suitable pivotal connection between said support and base B, and means for operating said drum, as set forth.

3. In a cigar-bundling machine constructed substantially as set forth, and provided with a base B and support F, said support having a countersunk portion *f*, spindle E, passing through said countersunk portion, and a suitable spring G, made fast at one end to said spindle, the other end of said spring being connected to said support at one side of its countersunk portion, and a suitable catch, as *f'*, to retain said base in a non-rotatable position after said spring is wound up, substantially as specified.

4. A cigar-bundling machine having a table
A, mounted on a base B, supports C between
said table and base, rollers J, mounted on
gages H, the latter being adjustably connect-
5 ed to the said table, adjustable back N, and
rollers K, drum D, journaled in the sup-
ports C, bands L, connected to said drum and
partially encircling the guide-rollers J and
K, and suitable means for rotating said drum,
substantially as set forth.

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