

R. W. HEYWOOD.
Improvement in Cigar-Machines.

No. 126,960.

Patented May 21, 1872.

Fig 1.

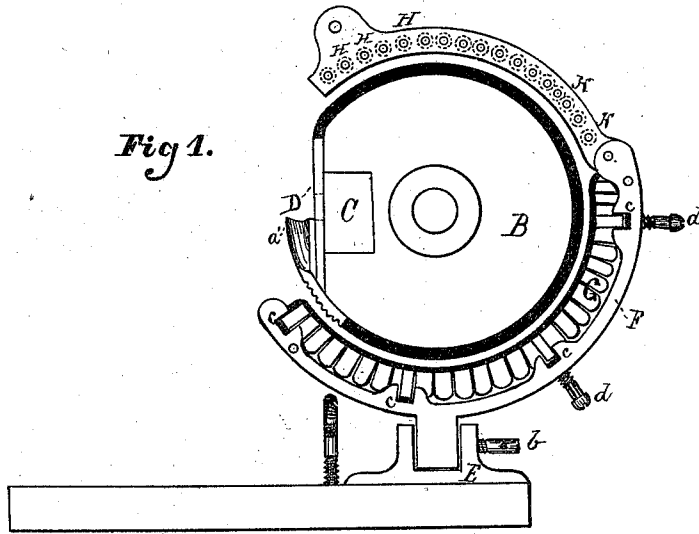
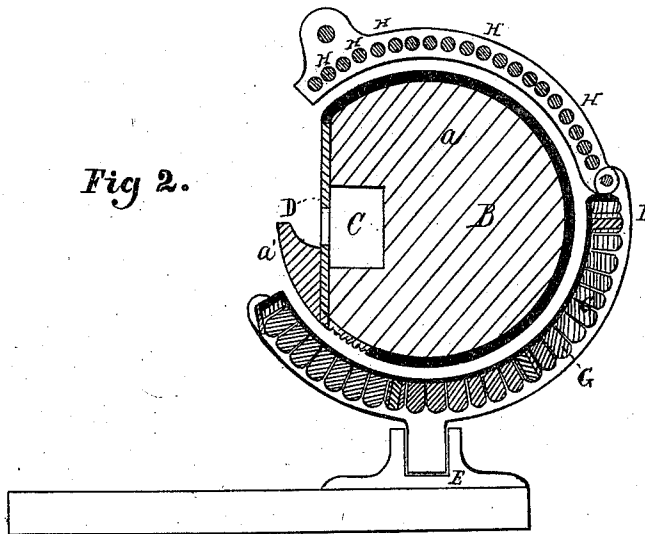


Fig 2.



WITNESSES:

Perkins & Co. Secy. for
A. C. Norris

INVENTOR:

Reuben W. Heywood.
By his Attorney
James L. Norris.

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Fig 3.

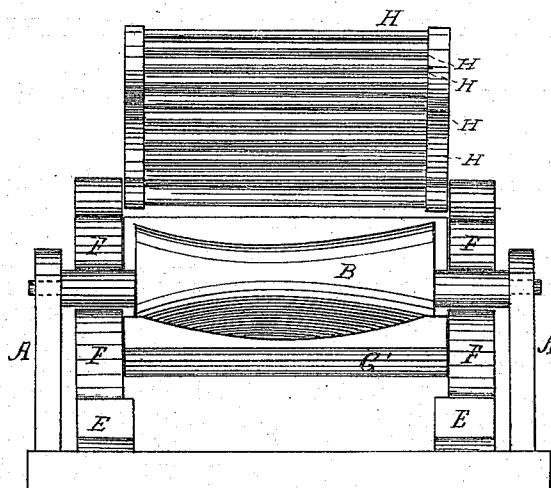


Fig 4.

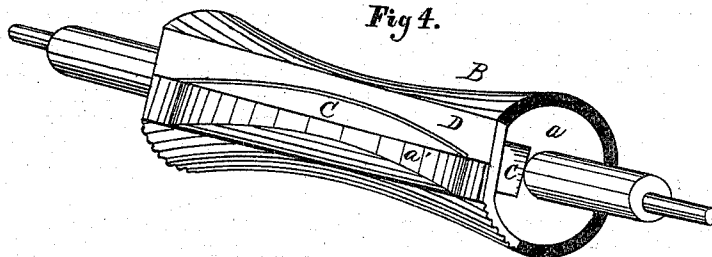
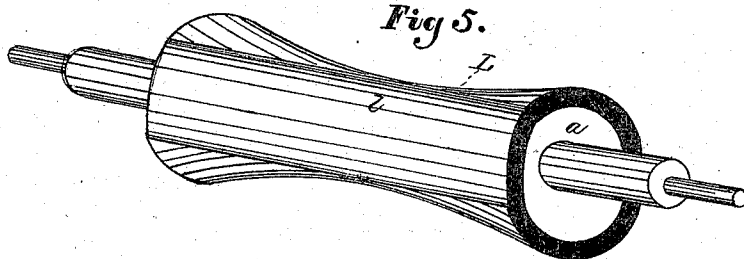


Fig 5.



WITNESSES:

Parker & Co. Sweet, Jr.
A. C. Norris.

INVENTOR:

Reuben W. Heywood.
By his Attorney.
James L. Norris.

UNITED STATES PATENT OFFICE.

REUBEN W. HEYWOOD, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN CIGAR-MACHINES.

Specification forming part of Letters Patent No. 126,960, dated May 21, 1872; antedated May 3, 1872.

To all whom it may concern:

Be it known that I, REUBEN W. HEYWOOD, of the city of Baltimore, county of Baltimore, and State of Maryland, have invented certain new and useful Improvements in Machines for Making Cigars; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable others skilled in the art to make and use the same.

The nature of my invention consists in, first, a concave main "filling"-roller covered with India rubber, or other suitable elastic material, so as to "give" to any inequality of the cigar while the filling is being rolled; second, a concave main "wrapping"-roller covered with India rubber, or other elastic material, so as to give to any inequality of the cigar while the wrapper is being applied; third, a frame supporting a series of small metal rollers, arranged over the top of the larger one, so as to assist in shaping and rolling the cigar; fourth, in forming the back or seat of the machine of any suitable elastic material, either of bars of wood or a sheet of steel or brass, and covering it with rubber, so as to make it soft and pliable to the cigar, and thereby prevent it from being crushed; fifth, in the application of any suitable spring and set-screw, so as to regulate the pressure of the back and roller upon the cigar while being rolled; sixth, in forming a recess in the side of the main or filling roller, so as to receive a mold for the cigar; and, seventh, in the arrangement of and combination of certain devices, which will be more fully set forth and explained hereafter.

In the accompanying drawing, Figure 1 is an end view of my improved cigar-machine, the frame-work being removed. Fig. 2 is a cross-section of the same. Fig. 3 is a front view of my improved cigar-machine with the roller in position. Fig. 4 is a perspective view of a filling-roller used in applying the binder to the cigar, and Fig. 5 is a perspective view of a roller for applying the wrapper to the cigar.

A represents two upright standards, which form journals for the ends of the roller B. This roller has a wheel, or any suitable device, attached to one end of its shaft, so as to attach it to a treadle, or any other power, by which it is revolved, and has its core *a* formed of iron or wood, and is covered with India rub-

ber, of any suitable thickness. The roller is concave upon its side, so as to correspond as nearly as possible to the cigar which is being made, and, by being covered with rubber, is rendered elastic and pliable, so as not to crush or break the cigar, should there be any inequalities in its shape. In one side of the roller there is formed a recess, C, extending longitudinally from one end to the other, and sufficiently large to receive a mold or case for the cigar. Hinged to one side of this recess is a cover, D, having an opening through it of the shape and size of the cigar, so that it can fall through into the case or mold beneath. This cover is oval in shape, extending back around the roller, and has a corrugated surface, (the use of which will be explained hereafter,) and a projecting rim or flange, *a'*, just back of the hole, so as to catch the cigar after passing round the roller, and just as it is about to fall out. Secured in the foot-clamp E, by set-screw *b*, is the back frame F, and to which the circular back G' is secured. This back may consist of strips of wood, or a sheet of elastic metal, brass, or their equivalents, and is covered with rubber, of any desired thickness, having a concave surface, so as to correspond to the concave of the roller. In the frame F there is formed a number of recesses or slots, in which are placed rubber or other suitable springs *c*, and controlled by set-screws *d*, whereby the pressure of the back upon the cigar can be regulated to any desired degree. Hinged to the top of the frame F, so as to extend over the top of the roller, is a frame supporting a series of small rollers, H, formed of metal or wood, which assist in feeding forward and shaping and rolling the cigar in a far better manner than if a second large roller were used.

The stock out of which the cigar is to be formed is placed upon the "binder" or "binders," arranged upon the corrugated surface of the cover D, immediately back of the flange or projection *a*, and the frame carrying the series of small rollers H turned down upon it. The large roller is then set in motion, and, as it revolves, it draws the stock under the small rollers H, the corrugated surface of the cover D preventing it from slipping before the small rollers have had the effect upon it. The cigar passes round under the roller until it reaches

the turned-up end of the back G, when it is caught by the flange or projection A, and falls into the case or mold placed to receive it. The roller B is then removed, and a second one, L, placed in its place. This roller, covered with rubber, is concave upon its top, like the one B; but, as it passes round the concavity, is gradually lost, until, at the point where the cigar comes out, it is almost perfectly straight. The stock or body of the cigar, which has already been formed, is placed upon the wrapper, the latter being arranged upon the concave surface of the second roller at or about the point *l*, the frame of the small rollers let down upon it, and the large one revolved, so as to give the body of the cigar a turning movement upon the wrapper, and pass it around between the roller and the flexible back, until the cigar comes out, when the operator has simply to give the ends a turn or two between his fingers, and the cigar is completed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a cigar-machine, the concave rubber roller B, having a portion of its periphery corrugated, when used for the purpose set forth.

2. The recess C, formed in the side of the roller B, for the reception of a case or mold, substantially as set forth.

3. The cover D, provided with the flange *a* and corrugated surface, in combination with the rotating roller, substantially as specified.

4. The hinged frame supporting a series of small rollers, H, in combination with the filling-roller B, substantially as described.

5. The back piece or bed G, made of any suitable elastic material and covered with rubber, in combination with a roller, B, as set forth.

6. In combination with the back piece, formed as described, I claim the springs *c* and set-screws *d*, substantially as described.

7. The finishing or wrapper roller L, formed and constructed as set forth.

8. The roller B having the recess *c* and rotating within the concave back or seat G, in combination with the series of rollers H, for the purpose set forth.

9. The wrapping-roller L, constructed substantially as shown, in combination with the series of rollers H and the concave back or seat G, substantially as and for the purpose specified.

10. The roller B having a recess, *c*, and cover D, in combination with the back or seat G and series of rollers H, when all are combined to form a cigar-machine, substantially as set forth.

11. The flexible back G and series of rollers H, in combination with the wrapping-roller L, substantially as described.

In evidence that I claim the above I hereunto set my hand this 25th day of September, A. D. 1871.

REUBEN W. HEYWOOD.

Witnesses:

JAMES L. NORRIS,

FRANKLIN W. MERRYMAN.