2 Sheets--Sheet 1.

# REUBEN W. HEYWOOD.

## Improvement in Forming Binders, Fillers, and Wrappers for Cigars.

No. 127,235. Patented May 28, 1872.

*Fig 1.*

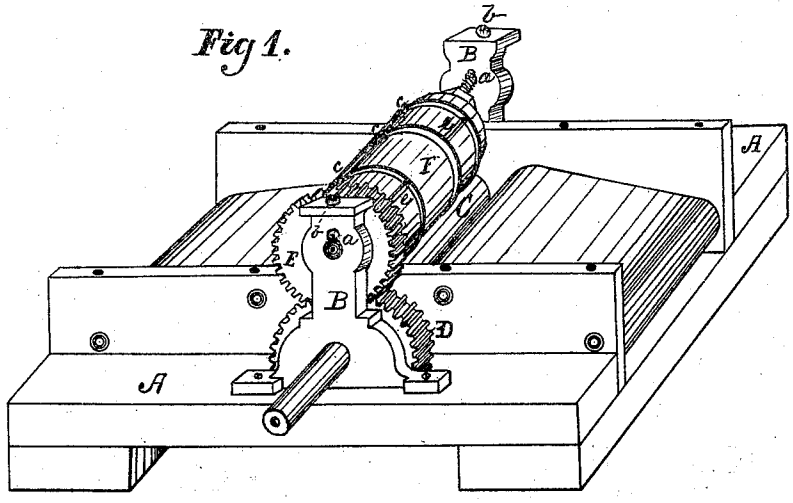
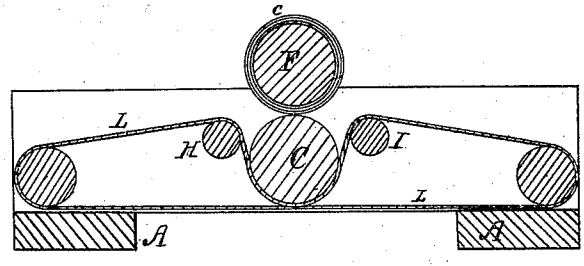



*Fig 2.*




**WITNESSES:**

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A. G. Morris

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By his Attorney

James L. Morris.

2 Sheets--Sheet 2.

# REUBEN W. HEYWOOD.

## Improvement in Forming Binders, Fillers, and Wrappers for Cigars.

No. 127,235. Patented May 28, 1872.

*Fig 3.*

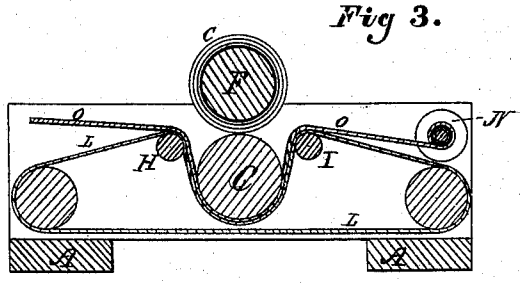



*Fig 4.*

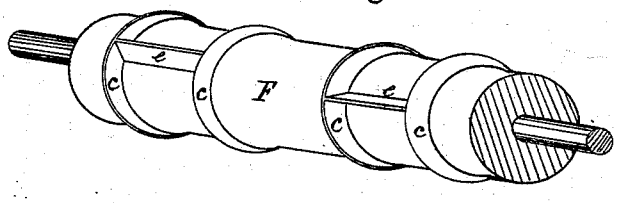
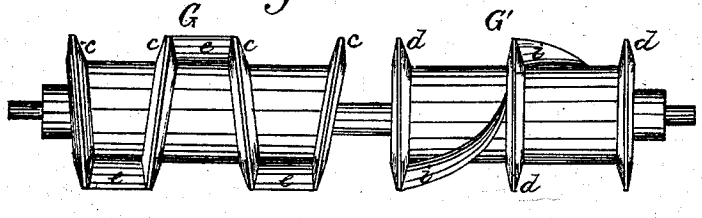



*Fig 5.*




**WITNESSES:**

Parker H. Sweet, Jr.

H. Norris

**INVENTOR:**

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# UNITED STATES PATENT OFFICE.

REUBEN W. HEYWOOD, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN FORMING BINDERS, FILLERS, AND WRAPPERS FOR CIGARS.

Specification forming part of Letters Patent No. 127,235, dated May 28, 1872; antedated May 11, 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 Forming Fillers, Binders, and Wrappers of 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.

This invention consists in the arrangement of two or more rollers, carrying on their periphery horizontally and diagonally arranged knives for cutting the stock for fillers and the binders and wrappers of cigars, as will hereinafter more fully be set forth. It also consists in the arrangement of certain devices to be used in combination with the rollers, so as to feed the tobacco in a continuous stream or sheet to the cutters, as will be hereafter more fully described.

In the accompanying drawing, Figure 1 is a perspective view of my improved machine for forming fillers, binders, and wrappers for cigars, showing the roller for cutting or preparing the fillers alone. Fig. 2 is a longitudinal section of my machine with the feeding-apron removed. Fig. 3 is a longitudinal section of my machine with the feeding-apron in position for operation. Fig. 4 is a perspective view of the roller for cutting or preparing the stock for the filler; and Fig. 5 is a perspective view of the rollers for cutting both the binders and wrappers.

A represents the frame of my machine, which may be of any desired material and construction. Secured upon each side is a standard, B, forming a journal for each of the rollers, and having an elongated slot, *a*, cut in their upper ends, so that the pressure of the knives upon the lower roller can be regulated by the set-screws *b*. C is a common smooth roller, covered with rawhide or any other suitable material, and has a driving-wheel, D, secured to one end of its shaft, so as to gear with the wheel E attached to the cutting-roller F, just above. The cutting-roller F, when used for cutting and preparing the stock for the fillers alone, has four or more blades, *c*, arranged diagonally around its periphery, and three, more or less, horizontal blades, *e*, so that three, more or less, sets of stock for fillers are cut at every revolution of the roller. The diagonal blades approach toward and radiate from each other, as shown in the drawing, and have the horizontal knives placed between their nearest edges, so as to cut the stock for the filler off at exactly the right length.

When it is desired to cut both the wrappers and binders at the same time, second rollers G G′ can be used, (instead of the one, F,) which, in addition to the knives already described, have three, more or less, cutters, *d*, extending straight around its periphery, and two or more cutters, *i*, arranged spirally between them; the spiral ones cutting the wrappers the required width and length, and the parallel ones *e e* cutting them of the proper length. Arranged on each side of the rollers C and F are two rollers, H I, over which an endless apron, L, passes in the usual manner, so as to feed the leaves, out of which the stock for the fillers and the wrappers and binders are to be cut, in a continuous stream to the rollers. Hung on journals at one end of the frame is a roller, N, around which is rolled a long sheet of rubber, paper, canvas, or cloth, O, or its equivalent.

The leaves of tobacco are first laid evenly and smoothly upon this sheet or roll, and are then rolled up with the sheet around the roller N. One end of the sheet is then passed under the smooth roller, between it and the endless apron; and when power is applied to the end of the shaft of the roller C the sheet is set in motion, passes down under the roller C and up over the endless apron L, passing the leaves of tobacco in a continuous stream directly between the two rollers, and then receives them again as they pass out on the opposite side in their cut and prepared condition.

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

1. The two rollers G G′, for cutting the binders and wrappers of cigars, having a common axis, when the same are constructed substantially as set forth.

2. The roller N and sheet or roll O, arranged for feeding the leaves to the rollers, substantially as described.

3. The rollers C, F, H, I, and N, endless apron L, conveying sheet O, and gears D and E, when all are combined to operate, substantially as specified.

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

REUBEN W. HEYWOOD.

Witnesses:

JAMES L. NORRIS,

FRANKLIN W. MERRYMAN.