E. BERG.

Apparatus for Filling Cigarettes.

No. 45,575. Patented Dec 27, 1864.

Fig. 2.

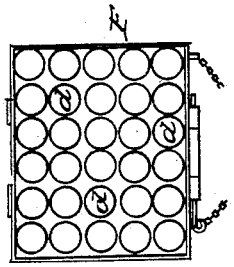


Fig. 3.

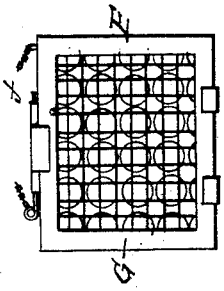
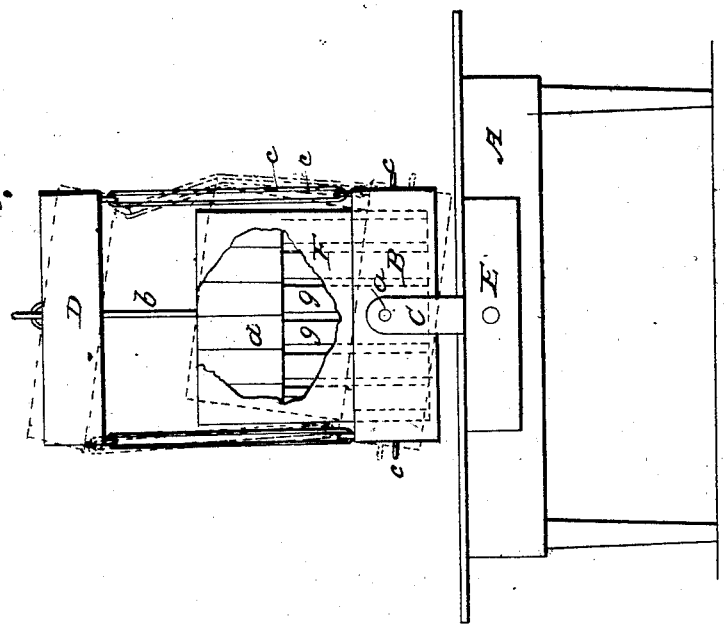


Fig. 1.



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UNITED STATES PATENT OFFICE.

EZECHEL BERG, OF NEW YORK, N. Y.

APPARATUS FOR FILLING CIGARETTES.

Specification forming part of Letters Patent No. 45,575, dated December 27, 1864.

To all whom it may concern:

Be it known that I, EZECHEL BERG, of the city, county, and State of New York, have invented a new and Improved Apparatus for Filling Cigarettes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

The object of my invention is to provide an easy and quick means for filling the paper tubes or wrappers of cigarettes, especially those of the cigarettos upon which I obtained a patent on 2d of August, 1864.

My invention consists, first, in the employment or use of a sieve and a frame or mold-carrier, which I term, respectively, a "hopper" and a "packer," so arranged that the one feeds the tobacco into the paper tubes or wrappers, and the other, by means of its oscillating motion, settles it down and packs it sufficiently, so that the paper tubes, having been subjected to their action, are ready to be withdrawn and have their ends folded in, which completes the process of the manufacture of the cigaretto.

My invention consists, secondly, in the construction of a mold or receptacle for holding the paper tubes while being filled, and also providing for their ready withdrawal after they have been filled.

To enable others to make and use my invention, I will proceed to describe its construction and operation, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my invention, a piece being broken out of the side of the cigarette-holder to show the arrangement of the tubes and the position of the cigarettes while being filled. Fig. 2 is a top view of the mold or paper-tube holder. Fig. 3 is a bottom view of the same.

A represents the table upon which it is designed to arrange the apparatus. I have represented a table, though in practice I arrange a series of the apparatus on a counter.

B represents the mold carrier or "packer," as I term it. It is arranged to swing upon journals *a*, which have their bearings in the standards C, and its distance from the table is just sufficient to allow its ends to strike upon the same at every downward oscillation. The effect of this is to settle the tobacco in the paper tubes or wrappers, and it accomplishes it perfectly, as the jar can be regulated as desired by simply pressing harder or lighter on the handles *c*. This mold carrier or packer B is made with an open bottom, so that any surplus tobacco falling from the hopper D may pass through it and deposit itself in a suitable receptacle, from which it can be removed without waste. A drawer, E, is shown in the drawings for this purpose, and a hole or opening corresponding with it in size is made in the table.

D is the hopper, suitably mounted on an arm, *b*, proceeding from the table, and it is arranged to swing directly over the packer B. It has a perforated or sieve-like bottom.

e e are cords connecting the hopper with the packer, so that when motion is given to the packer it is communicated to the hopper, thus giving to it an oscillating motion corresponding to that of the packer.

F is the mold or receptacle for holding the paper tubes during the operation of filling. It is made of a depth corresponding to the length of the cigarettes or cigarettos it is desired to make. It is formed by connecting together by solder or otherwise a number of metal tubes, *d d*, Fig. 2, of sufficient size to receive the paper tubes to be filled. These metal tubes extend about half the depth of the receptacle F, as shown in Fig. 1, that being sufficient stay or support for the paper tubes while being filled. Making them of this length facilitates the removal of the cigarette, which are shown by the letters *g g*, Fig. 1. To the bottom of this mold or receptacle F is fitted a door, G. (See Fig. 3.) This door is made of wire-netting or perforated metal, and is arranged so that it will drop down on the removal of the bolt *f*, and thus expose the closed ends of the cigarettes, or those having the mouth-piece. Thus an easy access to the cigarettes is provided, so that they can be withdrawn for the purpose of folding in the end intended for lighting. Making the metal tubes but half the length of the mold leaves a space between each cigarette, as shown in Figs. 1 and 3, and insures a more ready withdrawal of the cigarettes either singly or several at a time. Having the door G perforated allows any waste tobacco passing through an unfilled metal

tube, for instance, to pass into the packer, from whence it descends to the drawer E, and is thus preserved in a clean state.

The operation of filling the cigarettos is as follows: The paper tubes or wrappers having the mouth-pieces fitted in one end are dropped (that end downward) into the tubes of the receptacle F, and they immediately sink down until the said end rests upon the bottom or door G of the receptacle F. The several tubes *d* having been thus filled, the mold or receptacle F is placed in the sieve or packer B in the position shown in Fig. 1. A quantity of tobacco is then thrown into the sieve or hopper D. Motion is then given to the packer B by placing the hands upon its handles *c c* and pressing up and down. An oscillating motion is thus given to it and to the mold or receptacle F, which motion is communicated to the hopper D by means of the cords *e e* uniting them, which at once causes the tobacco to descend upon the receptacle in showers, thus the better and more evenly filling the cigarette wrappers or tubes. The packing is accomplished by forcibly striking the ends of the packer B upon the table A as it is being oscillated. All surplus tobacco thrown over the sides of the mold or receptacle passes through the packer B down into the drawer, and it is but very little that falls upon the table.

I have constructed several of the machines according to my invention, as herein described, and have them in use in my manufactory, and I find that they do the work for which they are intended in a most perfect and satisfactory manner, and by their use one man is enabled to do the work which would otherwise have to be performed by several hands in order to make the cigarettos as rapidly as demanded.

I do not confine myself to the particular arrangement herein shown and described; nor do I confine myself to a metal mold or receptacle, for wood or any other material could be made to answer the purpose; and so, indeed, could the tubes be made of any length.

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

1. The employment or use of the packer B and hopper D, constructed and arranged so as to operate substantially in the manner and for the purpose herein specified.

2. The mold or receptacle F, constructed substantially in the manner herein shown and described.

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Witnesses:
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