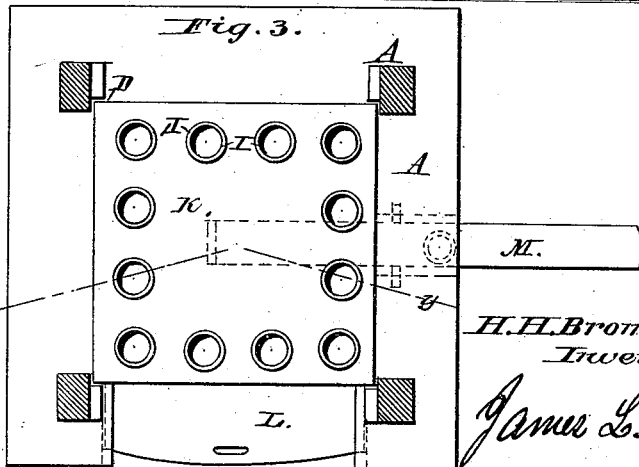
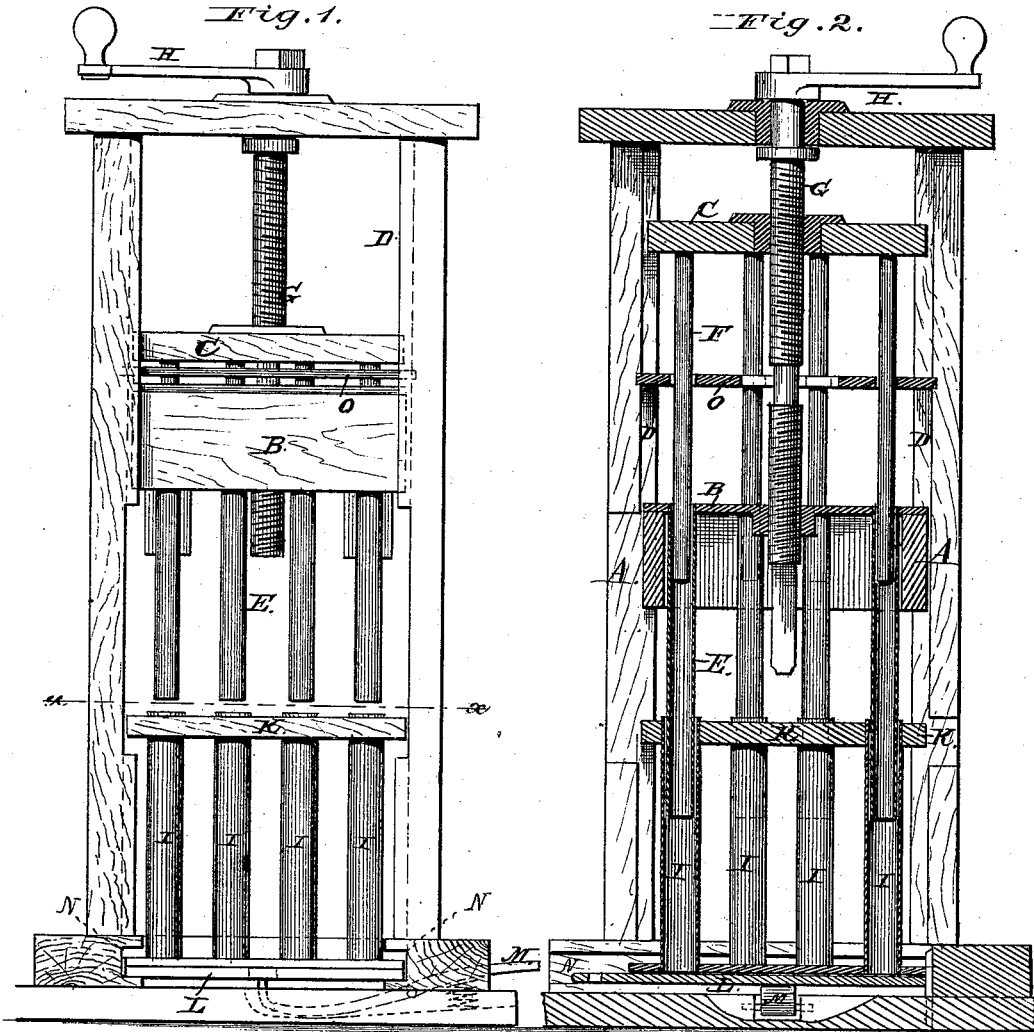


H. H. BROMWELL.  
CIGARETTE-MACHINE.

No. 190,541.

Patented May 8, 1877.



Attest  
R. C. Dennis  
Chas. L. Coombs.

H. H. Bromwell,  
Inventor.

James L. Norris,  
Attorney.

# UNITED STATES PATENT OFFICE.

HENRY H. BROMWELL, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN CIGARETTE-MACHINES.

Specification forming part of Letters Patent No. 190,541, dated May 8, 1877; application filed April 16, 1877.

*To all whom it may concern:*

Be it known that I, HENRY H. BROMWELL, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cigarette-Filling Machines, of which the following is a specification:

This invention relates to an improved apparatus for filling and packing cigarettes, its object being to provide for compactly and evenly filling the cases with tobacco, and more expeditiously than has heretofore been accomplished.

My invention consists of a series of upright tubes secured in a section capable of a vertical movement in a suitable frame, in combination with a series of plungers secured to a movable section, also capable of a vertical movement in the frame, the two sections being operated by means of a right-and-left screw in opposite directions, so as to force the plungers into the tubes which contain the tobacco, and discharge it into the papers or cases which are contained in a series of vertical tubes secured in a removable section in the lower part of the frame or apparatus.

In the drawing, Figure 1 is a side view or elevation of my improved cigarette-filling machine. Fig. 2 is a vertical section through the tubes and plungers; Fig. 3, a horizontal section.

The letter A represents an upright rectangular framing of suitable height, forming a support for the movable sections B C, which are adapted to move vertically in guides D, formed at the corners of the framing A. The section B is provided with a series of any desirable number of vertical tubes, E, of suitable size to contain just sufficient tobacco to properly fill a cigarette, and the section C, with a similar number of vertical plungers, F, having such relative positions in respect to the tubes E, that they will be forced into said tubes when the sections are brought together. The two sections are operated by means of a right-and left screw, G, which is so constructed and arranged with respect to the tube and plunger sections, as to give the plunger-section a slight start of the tube-section, for the purpose to be hereinafter explained. The said

screw extends upward through the top of the framing A, and is provided with a handle, H, or other means for rotating it. The letter I represents a series of tubes, the same in number and relative position as the tubes in the first-mentioned section, but larger in diameter than said first-mentioned tubes, in order that they may easily pass into the same. The tubes I are secured in a removable section, K, which is supported in place by means of a plate or platform, L, which is held in position by means of spring-lever M, by which the plate or platform can be dropped to allow the section to be removed when required. The lower part of the framing is provided with grooved guides N, extending to one side of the apparatus, in which the plate or platform, and the lower part of the section K, are confined when the apparatus is ready for work. The letter O represents a guide-plate for the plungers, to insure their proper entrance to their respective tubes.

The operation of my improved apparatus is as follows: The cigarette-papers, in the form of cylindrical tubes of suitable length, are placed in the tubes I of the section K, and said section is placed in proper position in the framing A. The movable tube and plunger sections having been brought together so that the tubes in the section K will clear the ends of the tubes in the section B, as said section K is inserted, the screw is then rotated so as to separate the sections B and C, and when the plungers are clear of their respective tubes said tubes will be inserted in the tubes below containing the papers to be filled with tobacco. The tubes in section B are then filled loosely with tobacco from their tops by throwing it in by hand, or otherwise distributing it to their respective tubes, after which the screw is so turned as to bring the two sections B and C together, the plunger-section starting slightly in advance of the tube-section, in order to prevent the tobacco from packing in the center of the tube. As the plungers descend the tubes in the section B are drawn out of the tubes I, leaving the tobacco evenly and regularly packed in the papers contained in the tubes I, and forming a finished cigarette in each of said tubes I. The section K can

then be removed and a new one substituted containing fresh papers, and the operation can be continued as before.

By my improvement from one hundred to one thousand cigarettes can be evenly packed and filled at once, thus greatly facilitating their manufacture, and the finished articles will be more regular and uniform in every respect than could possibly be accomplished heretofore. By the simultaneous downward movement of the plungers and upward movement of the tubes, the tobacco is thoroughly spread as it leaves the tubes and enters the cigarette-papers.

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

1. The combination, with the sections B and C, the tubes and plungers E and F, and mechanism for positively moving the sections toward each other, of the lower fixed tubes I, substantially as and for the purpose described.

2. The combination of the sections B and C, tubes and plungers E and F, right-and-left hand screw G, and fixed tubes I, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

HENRY H. BROMWELL.

Witnesses:

WILLIAM H. JENKINS,  
JOHN F. DONOHOE.