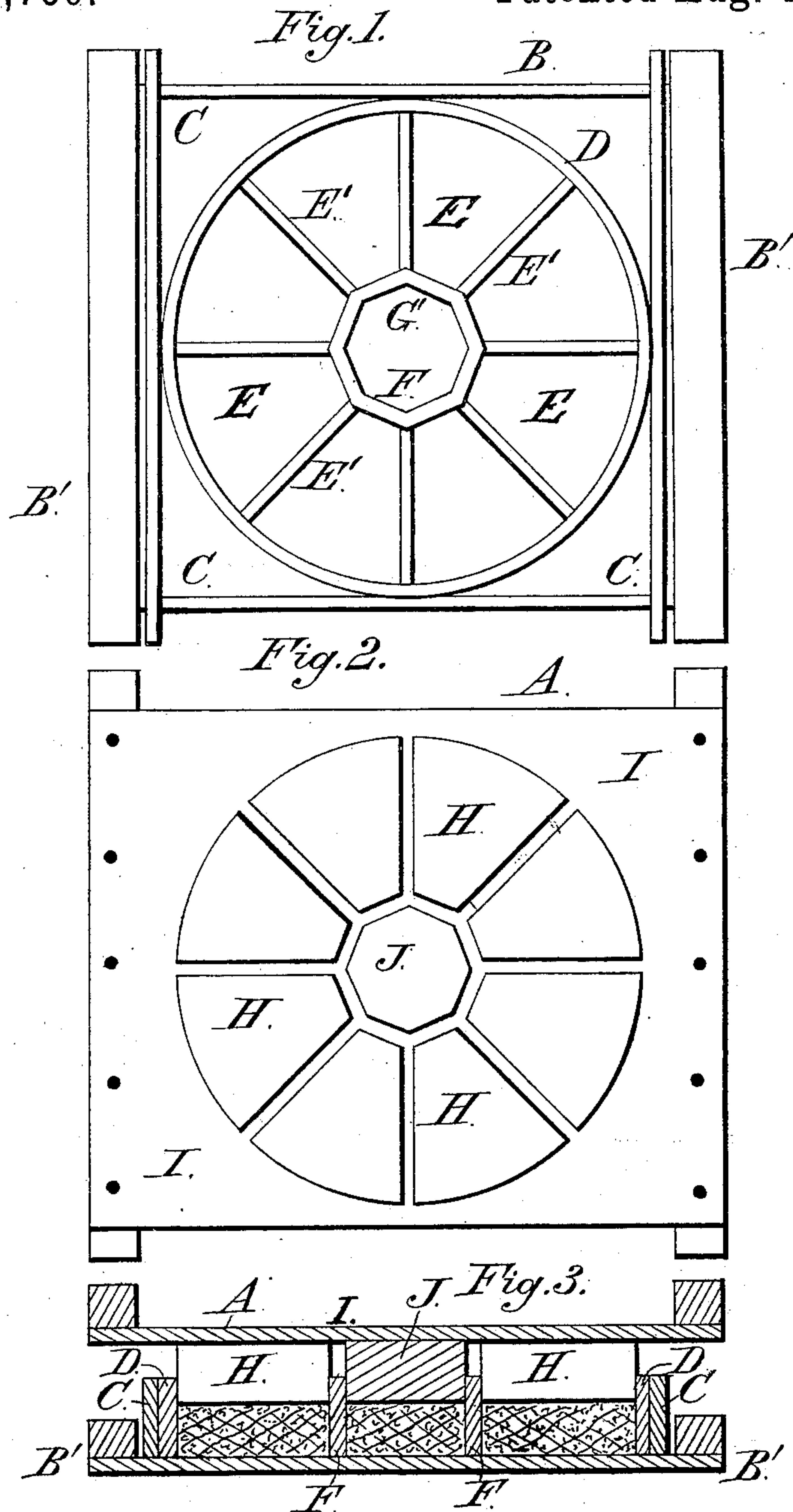


(No Model.)

W. W. WOOD.
PLUG TOBACCO MILL.

No. 245,759.

Patented Aug. 16, 1881.



Attest:

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UNITED STATES PATENT OFFICE.

WARWICK W. WOOD, OF WINSTON, NORTH CAROLINA.

PLUG-TOBACCO MILL.

SPECIFICATION forming part of Letters Patent No. 245,759, dated August 16, 1881.

Application filed April 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, WARWICK WHITFIELD WOOD, a citizen of Winston, residing at Winston, in the county of Forsyth and State of North Carolina, have invented certain new and useful Improvements in Plug-Tobacco Mills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention has relation to the manufacture of plug chewing-tobacco; and the said invention consists in a mill for forming plug-tobacco, composed of a central mold with its die and a number of separate molds with their dies formed with diverging sides radial to curved outer ends and either with or without curved inner sides concentric with the center, arranged around said central mold and die, for the purposes hereinafter set forth.

The object of the invention is to lessen the expense attending the manufacture of plug-tobacco, and at the same time so form the plugs that they shall possess advantageous qualities as regards attractiveness of appearance and adaptability to be compactly packed in round packages, kegs, or buckets without impairing their shape, the apparatus being so constructed, as will hereinafter appear, that a layer of plug-tobacco composed of a central plug and a series of plugs with curved outer ends and straight sides arranged around and radiating from said central one is formed at one operation, said series of plugs forming, when placed in proper packages, a compact layer or section of the package.

Referring to the drawings, Figure 1 is a plan of one part, and Fig. 2 a plan of the other portion, of a mill constructed in accordance with my invention. Fig. 3 is a central transverse section of the apparatus as in operation pressing a layer or series of plugs; Fig. 4, views illustrative of the different plugs formed by the machine illustrated in the foregoing figures.

A represents the upper portion of the apparatus or "mill," as it is termed, and B the lower portion.

The upper part or die, A, is composed of a central piece, J, of proper thickness and dimensions, and either circular or other form, as desired, and a number of pieces, H, of equal thickness with the central one. The pieces H are, as illustrated in the drawings, made with straight sides, forming lines radial to, and curved outer ends forming circles concentric with, the center. These pieces H, as well as the one J, are each separated a slight distance from each other, and all are secured to a back plate, I. They may be made of metal, or of wood faced with metal, as desired or found necessary. Turning now to the opposite part of the mill from the part A, we find in B a similar arrangement of outline—that is, the central part, F, to correspond with the part J, and a series of parts, E, arranged around said central part and corresponding with the parts H. This portion of the mill B is the mold or matrix, and the letters E and F represent the receptacles or cells of the mold within which the parcels of tobacco are placed, and which give the outline to the plugs. The parts H and J of the die or follower A are made of such size relative to the cells E F that they will closely fit within said cells.

The mold B (illustrated in the drawings) is composed of a strong outer frame, C, of proper height, within which is secured a circular band, D. From this band D, toward the center of the circle, radiate plates or walls E', united at their inner ends to a smaller circularly-arranged wall, G'. These walls D E' G' are all of proper height to permit of the formation of a plug of the desired thickness.

B' is a plate arranged with cleats on the side, and adapted to be placed beneath the mold B to form a removable bottom therefor.

When in position to form plug-tobacco the apparatus will assume the form shown in Fig. 3—that is, at the bottom is the removable plate B', then comes the mold B, with its series of separate cells, and then follows the die or follower A, the separate parts H and J of which enter the separate cells E F of the mold. Upon this pile are then arranged two, three, four, or more series of similar piles, when the whole is placed in the press to impart the required pressure to form the plugs of tobacco.

The operation is about as follows: The loose

masses or rolls of tobacco, either with or without wrappers, are placed within each of the cells of the molds. After each cell is thus provided and a series of molds filled sufficient to form a "stack," the followers are brought into position to enter the molds. The whole are then piled one upon another with a removable bottom plate between each set of molds and follower, when strong pressure is applied upon the top. This forces the dies into the molds and tightly compresses the masses of loose tobacco therein and forms the plugs, the outline of the plug partaking of the outline of the cells of the mold, as is apparent.

After sufficient pressure has been applied the molds are taken from the press, the followers withdrawn, the bottom plates removed, and the plugs knocked out of the cells of the mold.

Instead of forming the cells of the mold as herein shown—that is, with curved outer and straight inner ends—both ends may be straight or both curved, as desired, the idea being to so form the cells and dies that they shall, when arranged together, present two lines—an inner and outer—concentric with, and two diverging lines radial to, the center.

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

1. In a mill for forming plug-tobacco, a die or follower composed of a central distinct part and a series of separate parts arranged around said central part, the sides of which are on lines radiating from the center.

2. In a mill for forming plug-tobacco, a mold or matrix composed of a central distinct compartment or space and a series of separate compartments arranged around said central one, the sides of which are on lines radiating from the center.

3. A mill for forming plug-tobacco, composed of a mold having a central compartment and a series of separate compartments arranged around said central one, the outline of each of which presents two lines—an inner and outer—concentric with, and two diverging lines radial to, the center, combined with a die or follower having separate parts adapted to fit the different compartments of the mold.

WARWICK WHITEFIELD WOOD.

Witnesses:

J. T. ZIGLOR,

R. D. MOSELEY.