

C. A. KLOEPPING.  
MACHINE FOR MAKING PASTILS.  
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1,419,147.

Patented June 13, 1922.

*Fig. 1.*

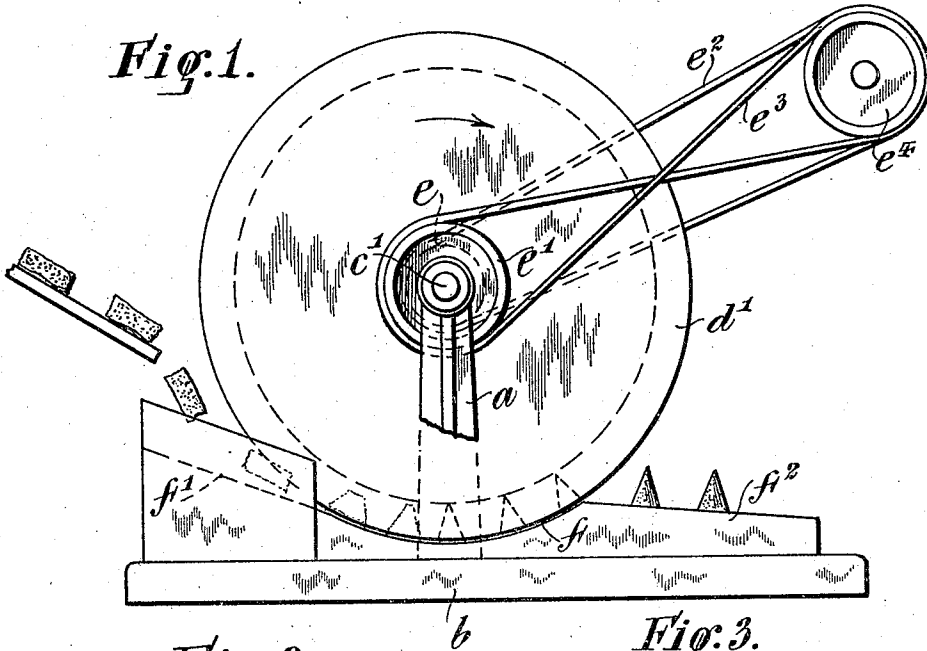


*Fig. 2.*

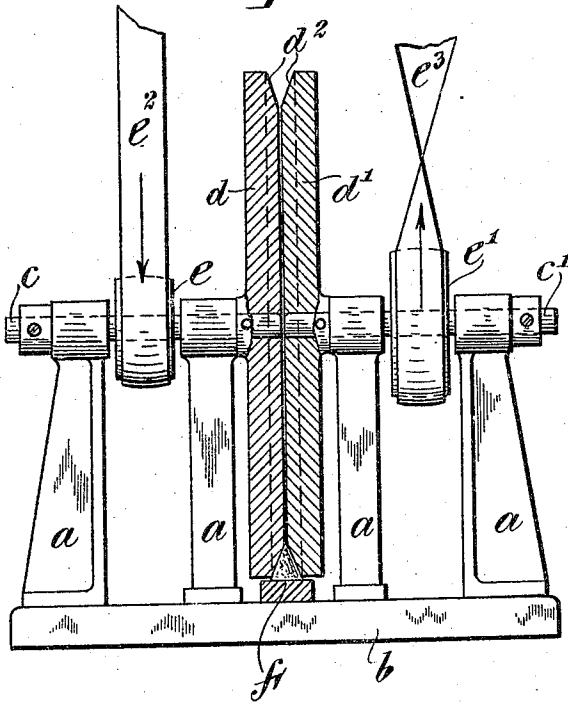


*Fig. 3.*

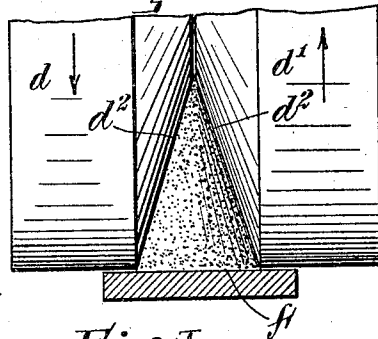
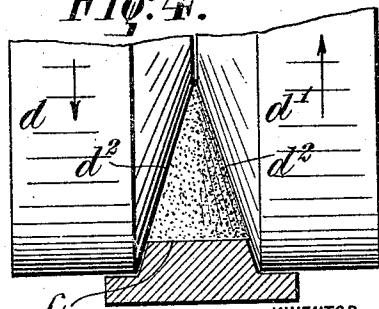


*Fig. 4.*



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## MACHINE FOR MAKING PASTILS.

1,419,147.

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*To all whom it may concern:*

Be it known that I, CHARLES A. KLOEPPING, a citizen of the United States, residing in the city of Hoboken, in the State of New Jersey, have invented certain new and useful Improvements in Machines for Making Pastils, of which the following is a specification, reference being had to the accompanying drawing, forming a part hereof.

10 This invention has for its object the production of a machine capable of forming from a plastic mixture pastils which, when dried, can be burned for purposes of fumigation, disinfection, deodorizing or filling the air with an agreeable odor, according to the character of the mixture. The machine is capable also of forming pastils or similar bodies for other purposes provided the character of the composition of which the pastils or other bodies are formed is such as to lend itself to formation by the machine in operation. For the formation of fumigating pastils, for example, the ingredients, in powdered form, are mixed with a suitable gum and water to form a mass of dough-like or putty-like consistency and measured portions of the mass are fed to the machine which forms the subject of this invention and by which each portion, more or less irregular in shape, is formed into conical shape so that when dried it can be ignited and will continue to undergo slow combustion, giving off the desired fumes.

15 In accordance with the invention each mass of the mixture to be formed into a pastil is subjected to a rolling action between two surfaces, one at least of which has a forward movement in the direction in which the pastil is to be delivered, so that each pastil receives not only a movement of rotation about its own axis, but a bodily forward movement so that it is discharged from the machine when fully formed. Preferably the two surfaces between and by which the pastil is formed and fed forward are parts of discs which rotate upon a common horizontal axis and in opposite directions but at different speeds, the direction of rotation of the faster moving disc where the formation of the pastils takes place being toward the point of delivery, but it will be obvious that this particular relation is not essential and that the invention may find expression in other arrangements. The invention will be explained more fully hereinafter with refer-

ence to the accompanying drawing in which it is illustrated and in which—

Figure 1 is a view of the machine in side elevation.

Figure 2 is a view of the same partly in elevation and partly in central section as seen from the left hand in Figure 1.

Figures 3 and 4 are detail views partly in section and on a larger scale showing the pastil in successive positions in the machine.

65 In the embodiment of the invention illustrated in Figure 4 there are mounted in suitable pedestals *a, a*, erected on a bedplate *b*, two shafts *c* and *c'*, in alignment. Each shaft supports a corresponding disc *d* and *d'*, which are beveled on their proximate faces, as at *d<sup>2</sup>* to form between them a V-shaped space, the proximate faces of the two discs being close to each other but not in contact. Suitable means, such as the pulleys *e, e'* and the belts *e<sup>2</sup> e<sup>3</sup>*, and driving pulleys, one of which is shown at *e<sup>4</sup>*, are provided whereby the discs *d* and *d'* can be rotated in opposite directions and at different speeds, the pulley *e* being shown as smaller than the pulley *e'* and the belt *e<sup>3</sup>* being shown as crossed, so that the disc *d* is rotated in a counter clockwise direction, as seen from the viewpoint of Figure 1, and at the faster speed, while the disc *d'* is rotated in a clockwise direction and at the slower speed. Below the discs *d, d'* and preferably in close proximity thereto is a guide and support *f*, which sub-tends a small arc on the discs and is preferably curved to conform thereto. A feed chute *f'* is provided at one end of the guide and support *f* for the purpose of directing the successive portions of the mass into the V-shaped space between the outer portions of the discs and at *f<sup>2</sup>* is provided a receiving surface upon which the completed pastils are delivered from the V-shaped space between the outer portions of the disc. Preferably the working surfaces of the discs, the chute, the guide or support and the receiving table or surface are formed of highly polished, non-corrosive metal, such as bronze, so that the composition will not adhere thereto.

100 As each portion of the dough-like or putty-like mass slides forward through the chute *f'* into the triangular space between the outer portions of the discs, such mass is rolled upon its own axis between the two co-acting surfaces and at the same time, by 110

reason of the higher speed of the disc *d*, is moved forward toward the point of delivery. By such rolling action the mass receives a conical form until it completely fills the V-shaped space, the quantity being carefully measured with that end in view. While the mass is thus receiving its conical form it is also being moved forward, sliding upon the guide and support *f*, and eventually is discharged in completed form upon the receiving surface.

It will be obvious that the shape of the space between the co-acting surfaces can be varied in shape and in size to suit the requirements of the product and that the relations of the co-acting parts in position, direction of movement and speed of movement, can also be varied to suit different requirements and that the invention, therefore, is not restricted to the particular construction shown and described herein except as pointed out in the claims.

I claim as my invention:

1. A machine for making pastils comprising two discs mounted for rotation upon a common axis and having a forming space between them, means to rotate one of said

discs with respect to the other in a direction to impart to a plastic mass between them a rolling motion and a forward movement, and independent means to support the mass during its formation and movement.

2. A machine for making pastils comprising two discs mounted face to face upon a common horizontal axis and beveled at their outer edges to constitute a forming space between them, means to rotate said discs at different speeds and in a direction to impart to a plastic mass in the forming space a rolling motion and a forward movement, and means to support the mass during such rolling motion and forward movement.

3. A machine for making pastils comprising two discs mounted face to face upon a common horizontal axis and beveled at their outer portions to constitute a forming space, means to rotate the discs in opposite directions and at different speeds, and means to support a plastic mass during its movement between the beveled surfaces of the discs.

This specification signed this 26 day of October A. D. 1921.

CHARLES A. KLOEPPING.