(No Model.)

P. D. HARTON.

CAKE MACHINE.

No. 603,081. Patented Apr. 26, 1898.

Fig. 1.

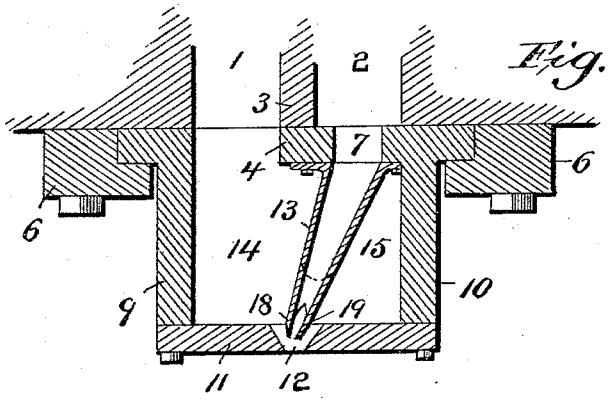


Fig. 2.

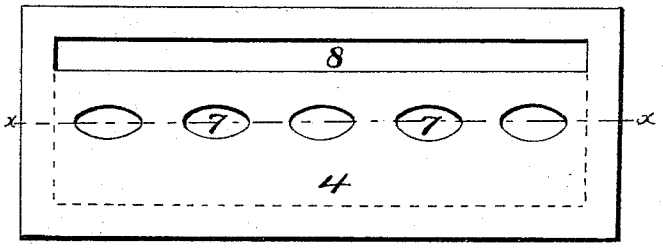


Fig. 3.

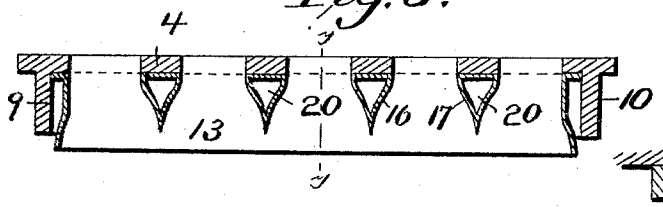


Fig. 4.

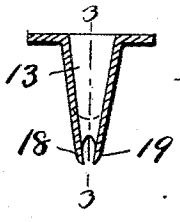


Fig. 5.

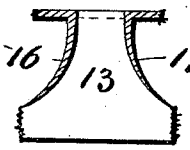


Fig. 6.

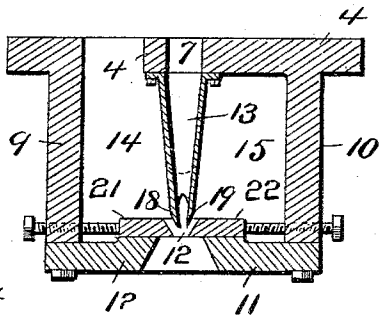
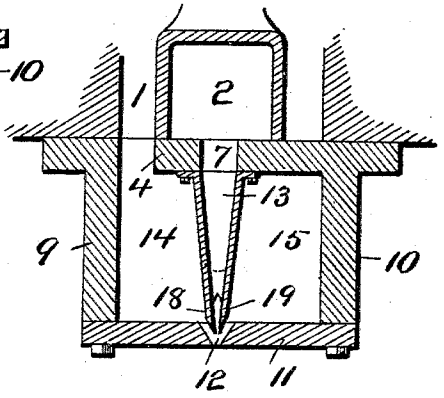


Fig. 7.



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PEMBROKE D. HARTON, OF PHILADELPHIA, PENNSYLVANIA.

CAKE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 603,081, dated April 26, 1898.

Application filed December 5, 1896. Serial No. 614,541. (No model.)

To all whom it may concern:

Be it known that I, PEMBROKE D. HARTON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cake-Machines; and I do 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 the figures of reference marked thereon, which form a part of this specification.

My invention relates to certain improvements in cake-machines whereby a plate can be placed at the lower or discharge end of the hopper, which will divide the contents into any number of parts, although I prefer to employ only two sheets of dough, which may be of the same or different mixtures, with jelly or jam interposed between the same.

Another object of my invention is to place plates of different characters in the machine and secure results other than what has been accomplished before.

The invention consists in certain novel features of construction and arrangements of parts, as will be more fully described and pointed out hereinafter.

Referring to the accompanying drawings, Figure 1 is a cross-section of the lower end of the hopper, showing plate and nozzles. Fig. 2 is a plan view of my improved sheeting-plate. Fig. 3 is a vertical section of same on lines $x\,x$ of Fig. 2. Fig. 4 is a vertical section on lines $y\,y$ of Fig. 3. Fig. 5 is a vertical section on the line $z\,z$ of Fig. 4. Fig. 6 is a modification of Fig. 1. Fig. 7 shows the same applied to another form of machine.

Like numerals designate the same parts throughout the several figures.

In the drawings, 1 and 2 designate the throatways leading from the hoppers, said ways being separated from each other by partition 3, which divides the hopper and extends down from the same, the hopper in this case being divided into two compartments for each kind of material to be forced into the sheet.

To the lower end of the machine directly under the passage or throat ways 1 and 2 I secure my sheeting-plate 4, which, as shown in figures, has outwardly-extending flanges, by which it is locked by clamp 6 to the machine. The center of this sheeting-plate 4 contains a number of openings 7, and to one side of said openings I provide an elongated slot 8, the under side of the sheeting-plate having depending walls 9 and 10 extending around the same and being closed by a bottom plate 11, having a central downwardly-tapered nozzle 12, formed longitudinally of the full length of the walls 9 and 10.

The openings 7 lead into a nozzle 13, which is secured to the under side of the sheeting-plate 4, and this nozzle extends at an angle to and depending into the nozzle 12. The nozzle extends centrally and dividing the interior of the space between the walls 9 and 10 into like spaces 14 and 15.

The nozzle, as shown in Figs. 3, 4, and 5, is so constructed that the upper part forms into as many nozzles or throats as there are openings 7 in the sheeting-plate 4. These nozzles or throats join each other midway of their length and form one large nozzle 13, the latter forming at its lower end an elongated slot or chute, having lips 18 19. The bottom plate 11 has an elongated discharge opening or nozzle 12, into which the lower end of the nozzle 13 extends, and causing the said opening 12 to be divided into two discharge-openings.

The sheeting-plate 4 may, if desired, have fewer openings in the same, although I prefer for the proper distribution of the plastic material to have a number of openings to insure the proper distribution of the dough on each side of the nozzle 13. The dough which fills the compartment 14 then goes through the openings 20 in the nozzle 13 and fills the compartment 15, after which the continual pressure causes the same, by reason of the nozzle 13, to be discharged into two sheets.

The operation of a machine provided with my improved sheeting-plate is as follows: The dough, after being placed in one of the compartments, and jam or jelly or other preserves into the other, the dough and jelly is worked by rolls or other means (not shown) into the passage or throat way 1, the jam or jelly into the passage-way 2, thence through the opening 8 into the lower chamber, the lat-

ter being divided into two compartments 14 15 by the nozzle 13. The material, after filling compartment 14, passes through the openings 20 between the upper part of nozzle 13 to the opposite compartment 15. By the continuous feeding of the dough the same is caused to discharge on each side of the nozzle 13 from the compartments 14 15 into two separate sheets, while between them is interposed or deposited, through the nozzle 13, a layer of jam or other preserves.

As will be seen from Fig. 6, I have the nozzle 13 depending in a vertical line with the opening or discharge-nozzle 12 and secured in any suitable way adjustable guides or gages 21 and 22, with means for regulating the same. These gages can be so adjusted from the outside of the plate that one sheet of dough can be made thicker, if desired, on one side of the sheet to be formed than on the other. In this figure, as shown, the gages form the discharge-nozzle 12, and the opening in the bottom plate 11 can be beveled either way.

Fig. 7 shows my improved sheeting-plate applied to the machine similar to that granted me November 24, 1896, No. 571,921.

What I claim is—

1. In a machine for making layer-cakes or crackers, a chamber having an elongated, narrow bottom discharge-opening, a discharge-nozzle dividing the chamber and discharging centrally into said opening, an inlet into one side of the top of the chamber, said nozzle formed with transverse passages therethrough, substantially as and for the purpose described.

2. In a layer-cake or cracker machine, the combination of a chamber inclosing the discharge-opening of the hopper, said chamber having an elongated central bottom discharge-opening, a nozzle depending through and dividing said chamber with its discharge end within and dividing said opening and forming therewith three parallel discharge-slits, said chamber having an inlet on one side of said nozzle, the nozzle having a plurality of transverse passages for the passage of the material in the chamber to the opposite side of the nozzle, all substantially as and for the purposes set forth.

3. In a sheet-forming device for layer-cake machines, the combination of a chamber inclosing the discharge-opening of the hopper, said chamber having a series of openings in its top communicating with one discharge-passage from said hopper, and a separate inlet communicating with a separate discharge from the same, separated nozzles from said series of openings merging into a single nozzle a distance below the same and depending through the chamber so that the openings one side of the chamber to the other, are formed between the nozzle, said nozzle having a bottom discharge between and opening into and dividing a bottom discharge-opening from the chamber from both sides of the nozzle, all substantially as and for the purposes set forth.

4. In a sheet-forming device for cake-machines, the combination of a chamber inclosing the discharge-opening of the hopper, said chamber having a bottom wall with a tapering opening across an intermediate portion thereof, and a top wall having an inlet-opening on one side and another inlet adjacent thereto, a nozzle from said last-mentioned inlet depending from the wall and dividing the chamber into two compartments and having its lower discharge end centrally arranged in the said tapered opening and dividing the same into two passages from said compartment, respectively, said nozzle formed to permit the material discharged into one compartment being forced laterally into the other compartment, all substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

PEMBROKE D. HARTON.

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