

(No Model.)

J. H. MITCHELL.

CAKE AND CONFECTIONERY MACHINE.

No. 245,538.

Patented Aug. 9, 1881.

Fig. 1.

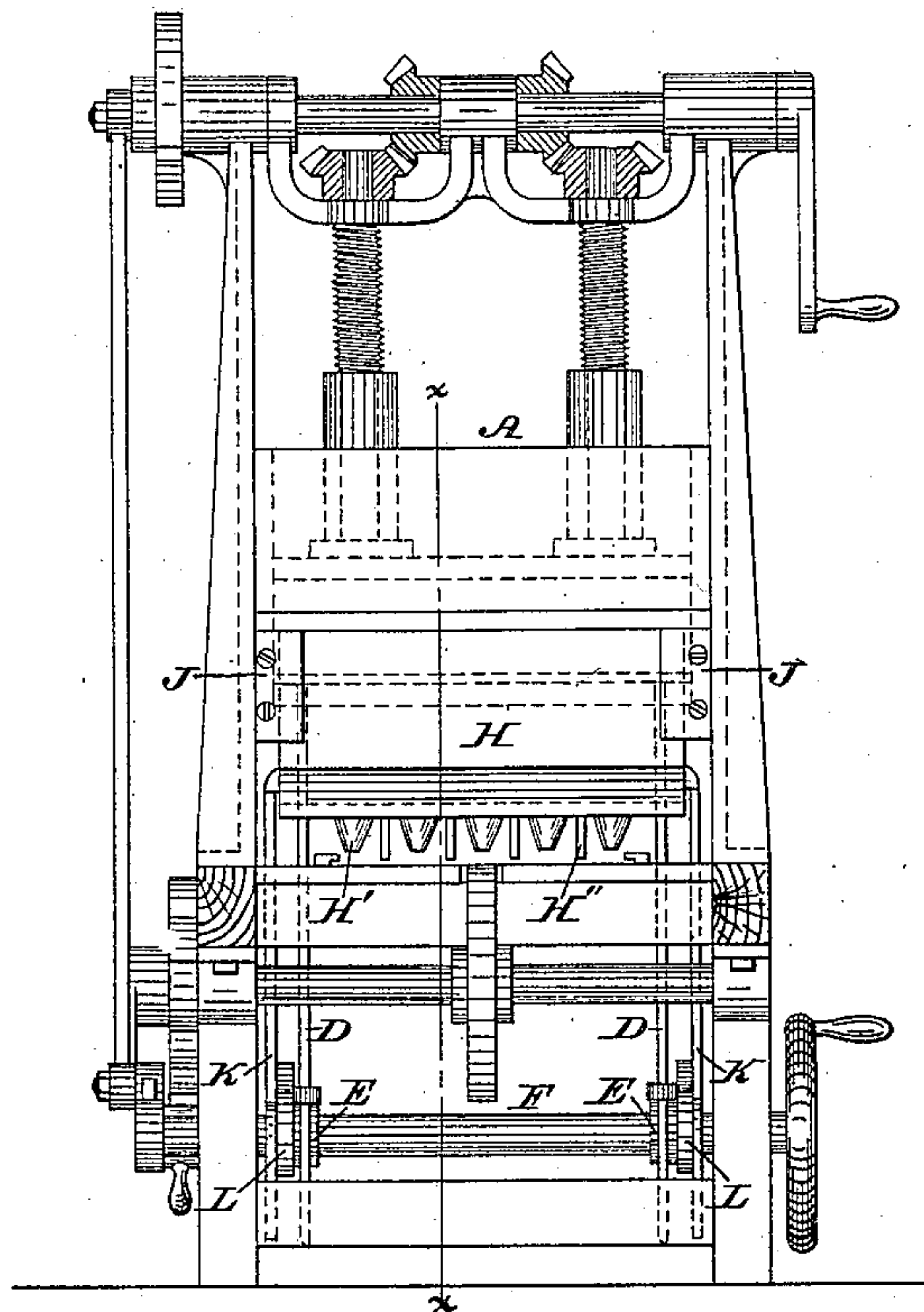
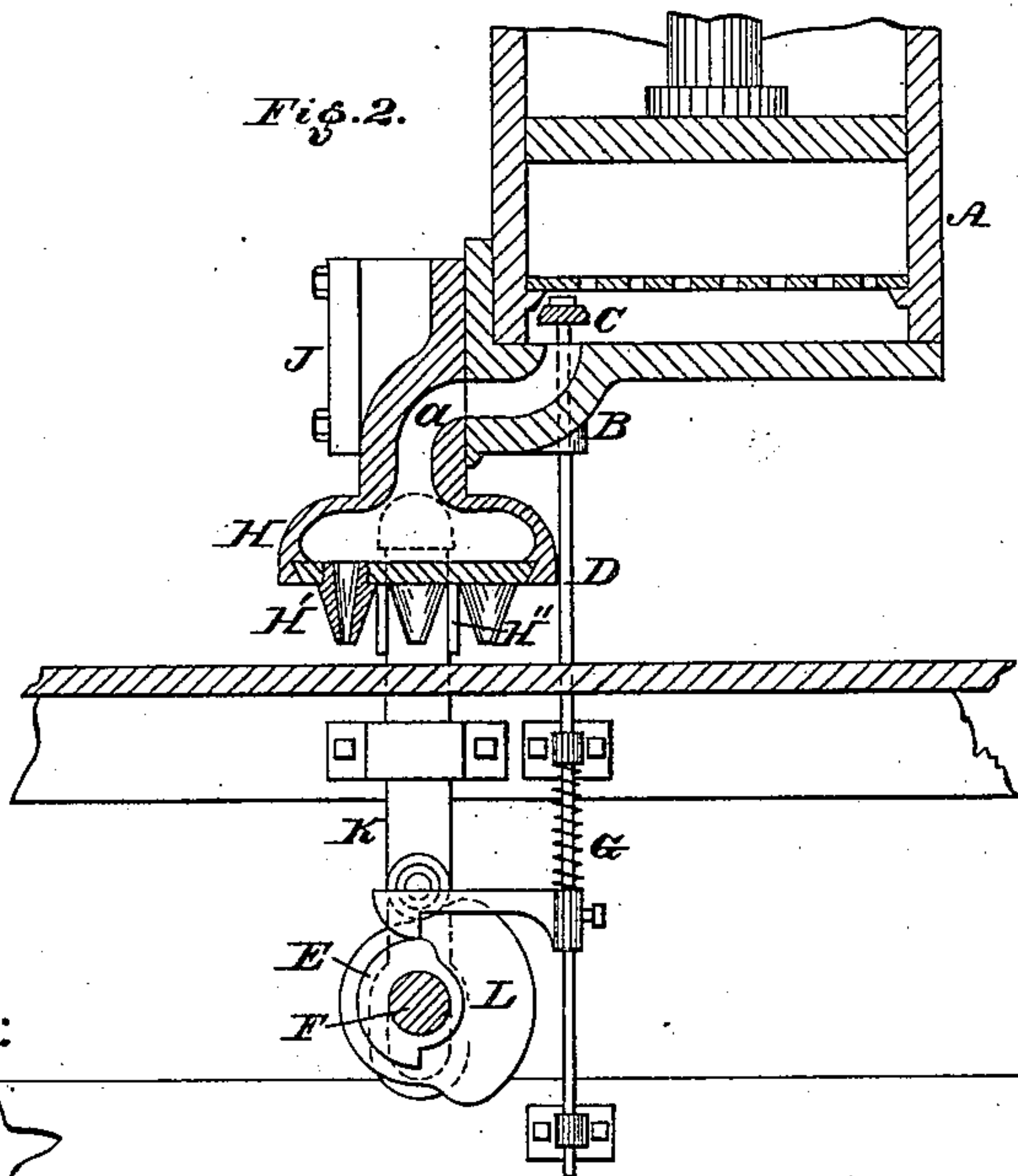


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## CAKE AND CONFECTIONERY MACHINE.

SPECIFICATION forming part of Letters Patent No. 245,538, dated August 9, 1881.

Application filed April 29, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, J. HENRY MITCHELL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machines for Manufacturing Cake, Confectionery, &c.; which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is an end view of the cake or confectionery machine embodying my invention. Fig. 2 is a vertical section of a portion enlarged in line *xx*, Fig. 1.

15 Similar letters of reference indicate corresponding parts in the two figures.

My invention consists of a machine for manufacturing cake, confectionery, and other plastic materials, having a double cut-off, whereby the supply of the mixture or material to be 20 shaped is primarily cut off in the supply-box, and then cut off in the nozzle-head, simultaneously with the breakage of the connection of the supplying-material from the shaped material in the pan.

25 Referring to the drawings, A represents the mixture or material box, provided with a piston having a continuous downward pressure, the mixture or material used being for the purpose of manufacturing confectionery, cakes, 30 or other plastic material.

B represents an outlet-spout, which is secured to or formed with the box A, the inner or upper end of said spout forming a seat for a puppet-valve, C, which, located within the 35 box, is connected to stems D, which are guided in the bottom of the box and frame of the machine. The stems D are raised by cams E, keyed or otherwise fixed to a driving-shaft, F, which is mounted on the frame of the machine, 40 whereby the valve C is opened and the lowering motion of said stems, and consequent closing of the valves, is occasioned or assisted by springs G, suitably connected to said stems and the frame of the machine.

45 H represents a sliding nozzle-head, which is fitted to vertical guides J, secured to the box A, adjacent to the outlet end of the spout B, the throat *a* of said head being adapted to form a continuation of the bore of the spout B when 50 the head is at its lowest position, the base of

the head having discharge nozzles or outlets H' and pan-flattening pins H'', as seen in Fig. 2. The sides of the head H are connected to or rest upon arms K, which, guided vertically in the frame of the machine, are connected to 55 cams L, which are keyed or otherwise firmly secured to the driving-shaft F.

The operation is as follows, the head H being in its highest position: The box is properly supplied with mixture or material, the 60 piston placed into the box on the material, and pressure imparted to said piston. Power is applied to the cam-shaft F, whereby the following actions occur: The head H drops to full extent, so that the throat *a* of the head 65 and the spout B are in communication. The valve C is lifted or opened and the top of the spout thereby uncovered. The material is now pressed through the spout into the head, and escapes from the nozzles H' and flows upon 70 the pan on the table beneath them of the size and shape desired. The valve C now suddenly closes, which act stops the supply of material into the spout B, and the sliding head H quickly rises, thus causing the wall of the head below 75 the throat C to close the contiguous end of the spout or act as a cut-off, so that the connection of the material within the head and that on the pan is broken. The pan is now moved forward for another deposit, or, if full, removed, 80 so as to permit drying or baking of the shaped material. The head then descends and the valve C is opened, and the other operations, as before stated, are repeated.

The outer faces or caps of the guides J are 85 removable, so that the head may be displaced, whereby access is afforded to the spout, the throat of the head, and the bottom nozzle-plate for purposes of cleansing, repairs, substitution of different nozzles, &c. 90

The spout B and nozzle-head H, with its throat *a*, are elongated or widened, and the spout and head, if desired, may be partitioned or sectional, each section of the spout having a separate valve, C, and communicating with 95 a separate throat of the nozzle-head. When the nozzle-head rises the material which has flowed on the table adheres to the latter, and breaks at the nozzle simultaneously with the cut-off at the point where the material flows 100



from the outlet or spout of the box into the neck or inlet of said head.

I disclaim in the present application the subject-matter of the first and fifth clauses of claim of the application filed by me on December 15, 1880, as follows:

“1. The combination of a material-box, a pan-supporting table, and means for separating said box and table, whereby, when the machine is in operation, the material flows in streams, and when the deposit is made the connection between the deposit and the nozzles or outlets of the box is broken.”

“5. The bottom of the material-box, having discharge-nozzles and provided with pendent stops longer than the nozzles.”

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

1. The supply-box having an outlet or spout, 20 in combination with a hollow nozzle-head having a corresponding neck or inlet sliding across the said outlet, and the table, arranged substantially as described, whereby the upward motion of said nozzle-head simultaneously 25 severs the material on the table from the nozzles and closes the outlet from the supply-box to the head, for the purpose stated.

2. The box with a discharge-spout, in combination with a valve at the upper or inner 30 end of said spout, and a sliding nozzle-head at the lower or outer end thereof, substantially as and for the purpose set forth.

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Witnesses:

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