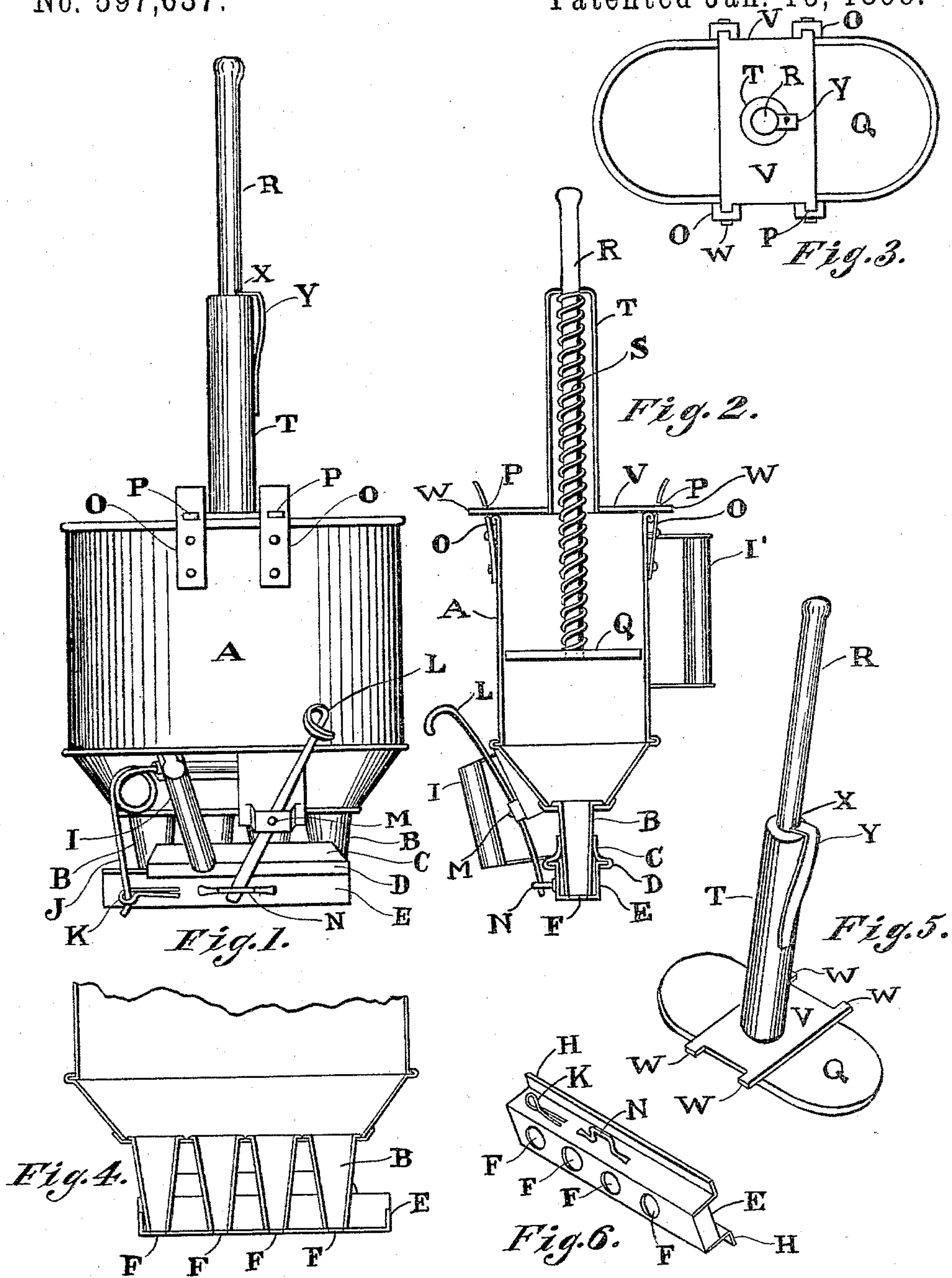


(No Model.)

R. W. DOUGLAS.
MARSHMALLOW RUNNER.

No. 597,637.

Patented Jan. 18, 1898.



Witnesses
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UNITED STATES PATENT OFFICE.

RALPH W. DOUGLAS, OF ST. JOSEPH, MISSOURI.

MARSHMALLOW-RUNNER.

SPECIFICATION forming part of Letters Patent No. 597,637, dated January 18, 1898.

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To all whom it may concern:

Be it known that I, RALPH W. DOUGLAS, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Marshmallow-Runners; 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 letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in machines for running the confectionery known as "marshmallow;" and it consists of a metal runner carrying a pressure-plunger acting automatically and having two or more nozzles, and a cut-off attachment consisting of a metal slide by which the confection as it protrudes from the ends of the nozzles may be cut off; and the principal object of my improvements is to provide a device that will enable a person to run a much larger amount of said confectionery in a given period than can be run by any other device and that will also economize in labor.

I attain my object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents an elevation of my invention. Fig. 2 is a transverse section of the same as it would appear in operation; Fig. 3, a plan of top when ready for use; Fig. 4, a longitudinal section of nozzles and cut-off. Fig. 5 is a perspective view of the pressure-plunger, and Fig. 6 is a perspective view of the cut-off.

Similar letters refer to similar parts throughout the several views.

In my invention A is the cylinder of the runner for the reception of the marshmallow material. At the bottom of said runner are two or more nozzles B. On opposite sides of nozzles B two metal strips C C are rigidly fastened. These strips are provided with flanges D D.

E is a cut-off slide having holes F in bottom corresponding in number and size with nozzles B and having turned edges H H to work in flanges D D. A handle I is attached

rigidly by an upper arm to cylinder A and by a lower arm to one of the strips C C. A spring J, having its upper end rigidly attached to the runner, has its lower end hooked in a loop K, which loop is rigidly attached to cut-off slide E. A lever L rests upon a fulcrum M, attached to side of the runner. The lower end of said lever works in a loop N, which loop is rigidly attached to cut-off slide E. On opposite sides of the cylinder A are attached metal strips O, with lower ends fastened rigidly to the outside thereof, each strip having a slot P just above the rim of said cylinder. A pressure-plunger (shown separately in Fig. 5) has its disk Q fitted to the inner circumference of cylinder A and its rod R encircled by a spiral spring S, the upper part of said spring being enveloped in a metal tube T, the upper end of which tube is flanged toward rod R. To the bottom of tube T is rigidly attached a metal plate V of oblong form, having at its angles detents W, that will fit into slots P. A slot X across said rod R permits the flange or turned end of metal-strip spring Y, which is rigidly attached at lower end to tube T, to reach over flange of said tube into said slot and hold the lower end of rod R and all of spiral spring S drawn up into tube T and disk Q drawn up against plate V.

I' is the handle by which operator supports the machine.

In operating the machine the fingers of one hand (usually the left hand) grasp handle I, while the thumb of same hand reaches lever L and draws it toward handle I each time it is driven back by the force of spring J. In this operation the hand at I only incidentally and partially supports the machine. Hence the necessity for handle I', by which the other hand lifts and holds the machine in position.

To operate said invention, the operator, having first removed the pressure-plunger, plate, and tube, places the marshmallow material in cylinder A. Having then pressed spiral spring S down to the position shown in Fig. 5, he sets the plunger in cylinder A, as shown in Fig. 1, detents W on metal plate V having gripped elastic strips O through slots P as the plunger was set in the cylinder. The grip end of metal-strip spring Y being drawn out of slot X rod R, disk Q, and spiral spring

S are instantly released, and the plunger proper is carried downward by the force of the spring as rapidly as the operator allows disk Q to press the marshmallow material through nozzle B. This will be as rapid as one hand of the operator grasping handle I and working lever L with thumb in conjunction with spring J can vibrate slide E back and forth, said slide cutting off the marshmallows as the material is automatically pressed through nozzle B and escapes therefrom as holes or openings F come into position under nozzles B.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a marshmallow-runner the metal cylinder A having two or more nozzles B, and metal strips C C having flanges D D in combination with cut-off slide E having turned edges H H and holes F F, handle I, spring J with its loop, lever L with its loop and fulcrum M, and strips O—each with its slot P, and a plate V with detents W—and rod R, disk Q, spiral spring S, tube T, and strip-spring Y for engaging slot X, substantially as described and specified.

2. The combination in a marshmallow-runner of pressure-plunger consisting of rod R, disk Q, spiral spring S, tube T and strip-spring Y provided for engaging slot X, and cylinder A with handle I' and having two or

more nozzles B—and strips C C with flanges D D and strips O—provided with slot P, a plate V provided with detents W—for engaging strips O—through slots P, and metal slide E provided with openings F, and turned edges H H for engaging flanges D D, handle I, spring J with its loop K, and lever L resting upon fulcrum M, and loop N, substantially as described and for the purpose specified.

3. In a marshmallow-runner the combination with the cylinder of the runner and the plate with tube, of a pressure-plunger with spiral spring, the spring being held within the tube and above the material in cylinder by means of a strip-spring engaging a slot in the rod until released for action, substantially as described and for the purpose specified.

4. In a marshmallow-runner the cylinder and an adjustable plate having a rigidly-attached tube on top, in combination with a spiral spring, strip-spring and slot by which the strip-spring and slot, spiral spring and plunger may be held elevated at the top of the cylinder, substantially as described and for the purpose specified.

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

RALPH W. DOUGLAS.

Witnesses:

J. SLANE,

EMMA HECKEL.