Jan. 30, 1951 I. F. BURY 2,539,944

CONFECTIONERY MOLDER

Filed Oct. 18, 1946

FIG. 1.

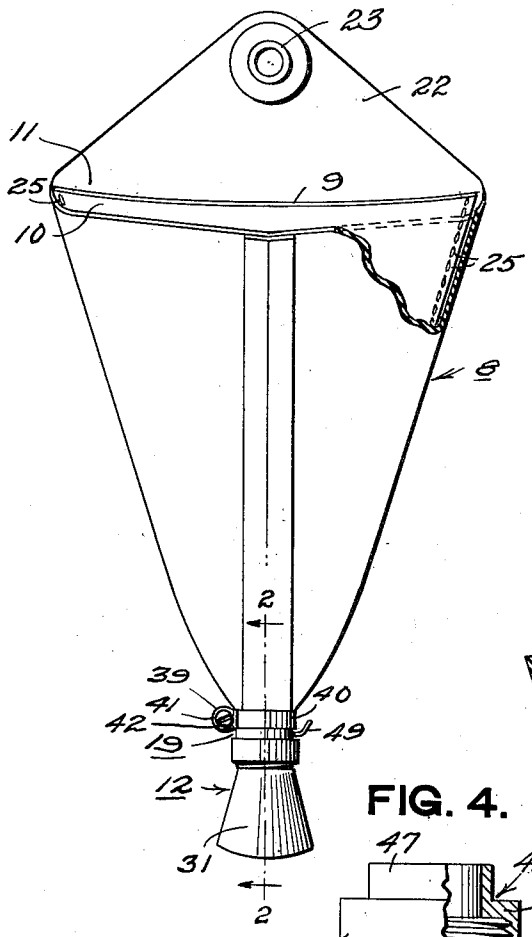


FIG. 2.

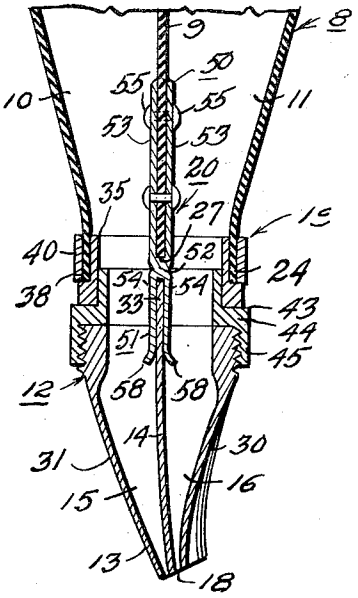


FIG. 3.

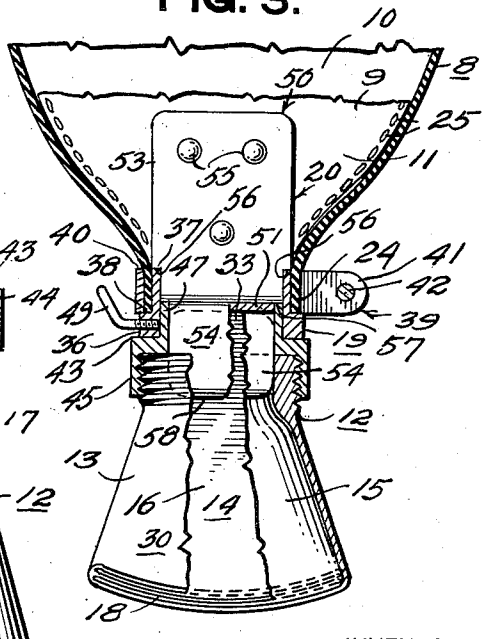


FIG. 4.

FIG. 5.

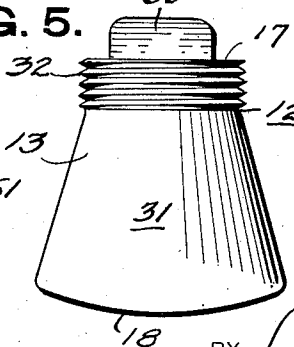
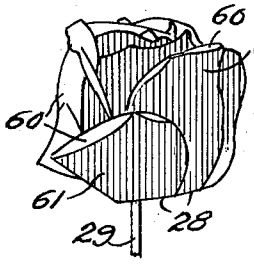


FIG. 6.



INVENTOR.

Irvin F. Bury

BY Lancaster, Allwine and Rommel

ATTORNEYS.

Patented Jan. 30, 1951

2,539,944

UNITED STATES PATENT OFFICE

2,539,944

CONFECTIONERY MOLDER

Irvin F. Bury, Washington, D. C.

Application October 18, 1946, Serial No. 704,153

5 Claims. (Cl. 107—52)

1

This invention relates to confectionary molders or decorating devices of the character using bags or hoppers as containers which may be charged with plastic substances and provided with interchangeable nozzles thru which the plastic substances are extruded in ribbon or other forms upon pressure exerted upon the plastics in the containers.

In the past this general combination of bag or hopper and nozzle has been used extensively to decorate cakes, candies and other edibles with ornaments in the nature of rosettes, flowers, scalloped borders, etc., each of a selected color. Attempts have been made to provide such equipment whereby two or more different colors or shades of color may be extruded from the nozzle, but with them difficulty has been experienced either in preventing the different colors or shades from flowing unevenly from the nozzle so that more of one color or shade is extruded than desired when the plastics of different colors or shades are not definitely separated in the container, or if definitely separated in the container then there are limitations as to the type of ornament that may be produced, such as to merely provide a center of one color and a surrounding area of a different color.

The principal object of the present invention is to provide a molder which may be used in producing ornaments made from plastics of different colors or shades of colors, and where the resulting product will be highly satisfactory and attractive in that unintentional extruding of more of one color or shade of color than of the other may be easily avoided. In a practical use of the molder, flowers, (such as roses by way of example, having petals of one color or shade on one side and a different color or shade on the other side) may be imitated in a manner so that it is difficult, without close inspection, to distinguish the imitation from the real article.

Another object of the invention is to provide a molder which may be used to make ornaments of one color if desired without the necessity of modifying the device and without the necessity of exercising unusual care in the procedure of bringing pressure upon the plastic in the container for the purpose of extruding it from the nozzle.

Further objects of the invention are to produce molders which may be easily cleansed, may comprise a number of different types of nozzles, any of which may be easily and quickly attached to the containers, and which may be manufactured at a low cost so that the invention may be brought

2

within the means of a vast number of users who may practice the decorating art and use the molder as described herein.

Other objects and advantages of the invention will appear in the following detailed description of a highly satisfactory embodiment of my invention, taken in connection with the accompanying drawing, forming a part of this specification, and in which drawing:

Fig. 1 is a side elevational view of a molder, constructed according to the present invention, a portion being broken away and shown in section to disclose preferred characteristics of the molder.

Fig. 2 is an enlarged, fragmentary sectional view on the line 2—2 of Fig. 1.

Fig. 3 is detail view partly in elevation and partly in vertical section of the lower portion of the molder looking toward the side opposite to that shown in Fig. 1.

Fig. 4 is a detail view partly in elevation and partly in vertical section of a coupling member used as a part of means to detachably connect the nozzle to the container.

Fig. 5 is a detail view in elevation of a typical form of nozzle well adapted for use in producing imitation flower petals.

Fig. 6 is an elevational view showing a typical product which may be produced by use of a molder constructed according to my invention, the vertical lines symbolizing the color red or pink color of the outside of rose petals as distinguished from the white areas thereof.

Generally speaking the molder comprises an open bottom container including a main body portion 8 and partition means 9 dividing the same into vertical compartments 10 and 11; a nozzle 12 including a main body portion 13 and partition means 14 providing a plurality of ways 15 and 16 for flow of plastic material from the receiving end 17 to the delivery end 18 of the nozzle; coupling means 19 for detachably connecting the nozzle to the container; and supplemental partition means 20 associated with the partition means 9 and 14 to prevent plastic material from finding its way from one side of the partition means 9 and 14 to the other side thereof.

The container main body portion 8 and partition means 9 are preferably made of flexible material, such as rubber or rubberized cloth, so that they may be rolled from the upper toward the lower portions thereof, in a manner somewhat similar to that followed in expressing plastic material from a collapsible tube. The body portion 8 is preferably provided with an upper tab extension 22 and may be provided with an eyelet

23 to permit of its being hung on a pin or hook for charging and when not in use. The lower open end 24 of the body portion 8 is preferably round in plan, and the partition means may be secured to the body portion 8 as by stitches 25 drawing the materials in intimate, liquid tight engagement, or in any other suitable manner. The lower end 27 of the partition 9 may terminate short of the lower margin of the body 8 as shown in Fig. 2, so that the partition will not render the container bulky at the portion receiving the coupling means 19.

The nozzle 12 in the example shown is particularly well adapted for producing imitation flower petals 28, mounted on a stem 29, altho it is to be understood that various types of nozzles may be provided, as is common practice, to produce various ornaments without departing from the spirit of my invention. However, since the imitation of flower petals, having different colored or tinted faces has always been a problem, unless resort is had to brushing on a different tint or color after the plastic material has set, and which is a time consuming and tedious procedure, I have elected to show a novel nozzle particularly well adapted to produce imitation flower petals of different colors or tints, altho it may also be used to produce petals of uniform color. The particular nozzle disclosed has its main body portion 13 shaped so as to be round in top plan at its receiving end 17 and concavo-convex at its delivery end 18. This is accomplished by rendering one side wall 30 generally concave at its exterior as indicated in Fig. 2, and its opposite side wall 31, generally convex at its exterior, as shown in Figs. 1 and 5. The margins of these walls are preferably arcuated downwardly as shown in Figs. 1, 3 and 5 which assists in producing an imitation petal that is somewhat concavo-convex in cross section along both axes as is common with rose petals. The receiving end 17 of the nozzle is preferably provided with a screw thread 32 for cooperation with parts of the detachable coupling 19 as hereinafter described, and the partition 14 is preferably provided with an upper tongue portion 33 extending above the plane of the receiving end of the nozzle as shown in Figs. 2, 3 and 5. The lower end of the partition 14, in the example shown parallels the lower margins of the delivery end of the nozzle, as shown in Figs. 2 and 3.

The coupling means 19 is particularly well adapted for quick attachment and detachment of the nozzle and for thoro cleansing of the equipment and in the example shown comprises a sleeve member 35 having a body portion 36 and an upwardly extending flange 37 of reduced external diameter providing a shoulder 38; a clamp 39 including an arcuate body 40 terminating in ears 41 for receiving a bolt 42 which is an arrangement similar to a hose clamp; a sleeve member 43 comprising an annular body portion 44, a circular flange 45 depending therefrom provided with an internal screw thread 46 for engagement with the thread 32 of the nozzle and a circular upstanding flange 47 for telescopic engagement in the sleeve member 35; and a set screw 49 used to hold the sleeve members 35 and 43 in such telescopic engagement. The material of container body 8 may surround the flange 38, abut against the shoulder 38 and be held in fluid tight engagement therewith by the clamp 39 as shown in Figs. 2 and 3. The internal diameter of the body 44 and flange 47 is substantially equal to the tongue portion 33 of partition 14 so the latter may have sliding engagement therewith as the sleeve member 43 is screwed on and off the nozzle. This arrangement permits the parts 43 and 12 to be detached for thoro cleaning and permits the manufacture of the nozzle from material different from that used in producing the sleeve member 43. When applying a nozzle, equipped with the sleeve member 43, to the coupling sleeve 35, secured to the container 7, merely a sliding or telescopic movement is required and the parts may be easily held together by use of the set screw 49.

The supplemental partition means 20 may be made of any suitable rigid or slightly flexible material, such as sheet metal or plastics of resin, acetate or other kinds, either fabricated or molded. In the example shown it is made of two pieces 50 and 51 of sheet material each bent to V-shaped cross section and welded together as at 52, at their bight portions and arranged so that the upper piece 50 has its arms 53 embracing the partition 9 and its lower piece 51 inverted with its arms 54 embracing the partition 14. In the example shown the piece 50 is secured to partition 9 by rivets 55 and is fabricated to provide downwardly facing shoulders 56 to engage upon the flange 37 and having downwardly facing shoulders 57 engaging upon the flange 47 as shown in Fig. 3. The piece 51 is made of a width to fit snugly crosswise the bore of sleeve member 43 and may have its free ends 58 outturned to assist in guiding the tongue portion 33 of partition 14 to a position where it is embraced by the arms 54. In this way the partitions 9 and 14 are disposed in substantial alignment and the supplemental partition means 20 prevents plastic material from finding its way from the companion faces of partitions 9 and 14 to the other companion faces thereof as the plastic material flows or is forced from the container body portion 8 into the nozzle 12.

It is believed the operation of the molder will be clear from the foregoing description of the embodiment of my invention, however, it may be pointed out that if it is desired to produce ornaments of uniform color in very thin ribbons, only one of the compartments 10 or 11 of the container may be charged with the plastic of the desired color and such may be expressed from the container by the rolling of the container as previously described or such rolling combined with a squeezing action applied laterally to the container walls and partition, or if a thicker ribbon is desired, both compartments 10 and 11 may be charged with the plastic material of uniform color. The example of an ornament shown in Fig. 6 is, however, a representation where different plastics of different colors are used such as white and pink or red, one in the compartment 10 and the other in compartment 11. Then when the plastic is extruded from the nozzle in two separate ribbons it will join to produce a petal, by way of example, which is white on one side, as at 60, and red or pink on the other side, as at 61.

I claim:

1. A molder of the character described, comprising a container for plastic materials including a main body portion open at its bottom, and flexible partition means dividing the same into a plurality of compartments; a nozzle including a main body portion and rigid partition means therein providing a plurality of ways for flow of plastic material thru the nozzle; means detachably connecting the nozzle to the bottom end of

the container with the partition means of the latter substantially in alignment with the partition means of the nozzle; and a supplemental rigid partition means carried by the lower portion of said flexible partition means of the container, and including walls fitting in the receiving end of the nozzle and detachably engaging opposite sides of the rigid partition means of the nozzle to prevent plastic material from finding its way from one side of the partition means of the container and nozzle to the other side thereof.

2. A molder of the character described, comprising a container for plastic material including a main body portion, round and open at its lower end, and a partition dividing said body portion into two vertical compartments, said partition extending to a line short of the round open end of the main body portion; a nozzle including a main body portion, provided with a round sleeve portion at its receiving end, and a partition in its main body portion dividing the same into two ways for flow of plastic material thru the nozzle; a coupling means for detachably connecting the nozzle to the container, including a sleeve extending into said round open end of the container, in fluid tight engagement therewith, said round sleeve portion of the nozzle and said sleeve of the coupling means interfitting one with respect to the other, and a supplemental partition means carried by the lower portion of said partition of the container and including an inverted U-shaped lower portion, embracing the upper portion of said partition of the nozzle, as and for the purpose set forth.

3. A molder of the character described, comprising a container for plastic materials including a main body portion open at its bottom, and partition means dividing the same into a plurality of compartments; a nozzle including a main body portion and partition means therein providing a plurality of ways for flow of plastic material thru

the nozzle; and means detachably connecting said nozzle to the bottom end of the container with the partition means of the latter in substantial alignment with the partition means of the nozzle, comprising a sleeve in fluid tight connection with said container at its open end, a sleeve in detachable engagement with said nozzle and in telescopic engagement with said first mentioned sleeve, and a releasable device for holding said sleeves in said telescopic relationship.

4. As an article of manufacture a molder nozzle, including a main body portion and a partition dividing same into a plurality of ways for plastic material to be extruded therefrom, said main body portion being circular in plan at its receiving end and concavo-convex at its delivery end.

5. As an article of manufacture, a molder nozzle, including a main body portion and a partition dividing same into a plurality of ways for plastic material to be extruded therefrom, said main body portion being circular in plan at its receiving end and concavo-convex at its delivery end and said partition at the delivery end of the nozzle paralleling the concavo-convex contour of the delivery end of the main body portion of the nozzle.

IRVIN F. BURY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
484,937	Megson	Oct. 25, 1892
573,432	Megson	Dec. 15, 1896
1,356,891	Steinle	Oct. 26, 1920
1,657,299	Dagley	Jan. 24, 1928
1,808,788	Proos	June 9, 1931
2,419,654	Moore	Apr. 29, 1947