Feb. 15, 1955 E. W. LARKIN 2,702,011

TRAY AND STICK HOLDER FOR FROZEN CONFECTIONS

Filed Nov. 2, 1951 2 Sheets-Sheet 1

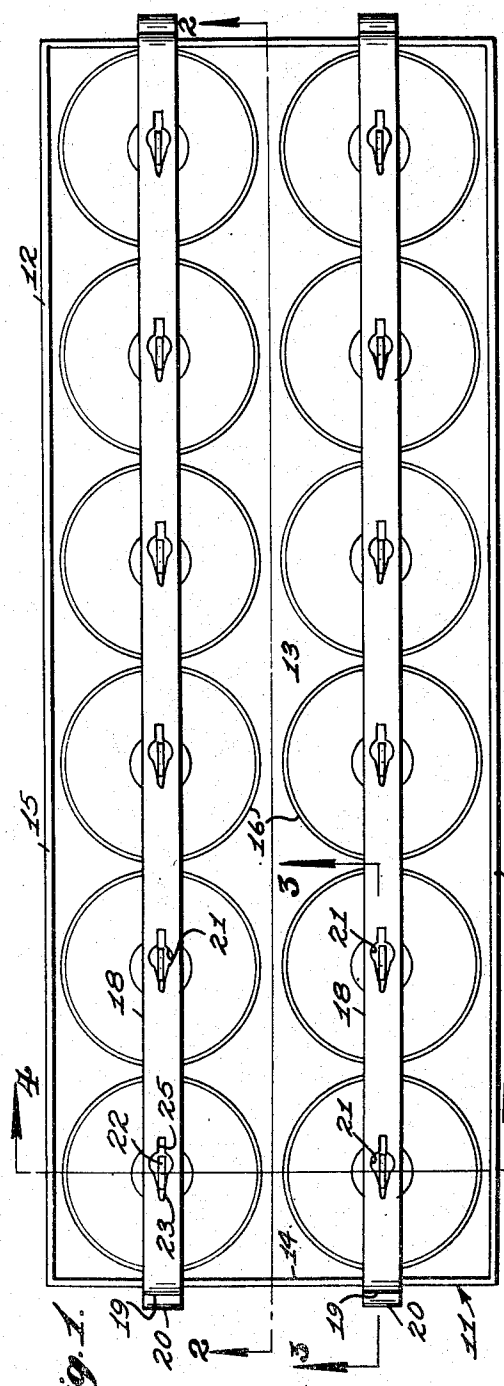


Fig. 1.

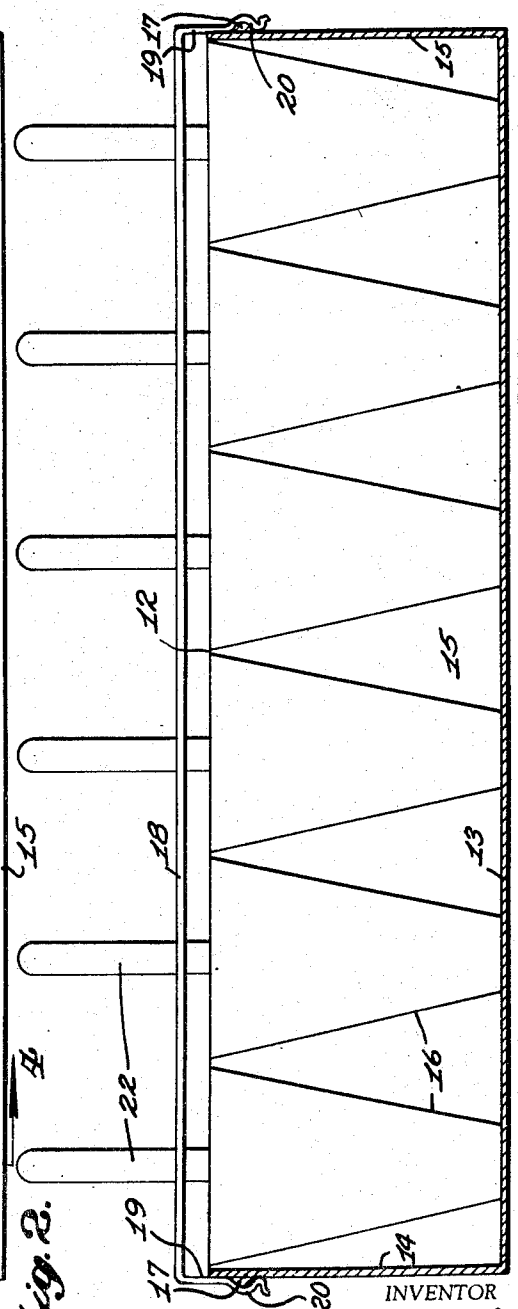


Fig. 2.

INVENTOR
ERNEST W. LARKIN

BY
McMorrow, Berman & Davidson
ATTORNEYS

Feb. 15, 1955 E. W. LARKIN 2,702,011

TRAY AND STICK HOLDER FOR FROZEN CONFECTIONS

Filed Nov. 2, 1951 2 Sheets-Sheet 2

Fig. 5.

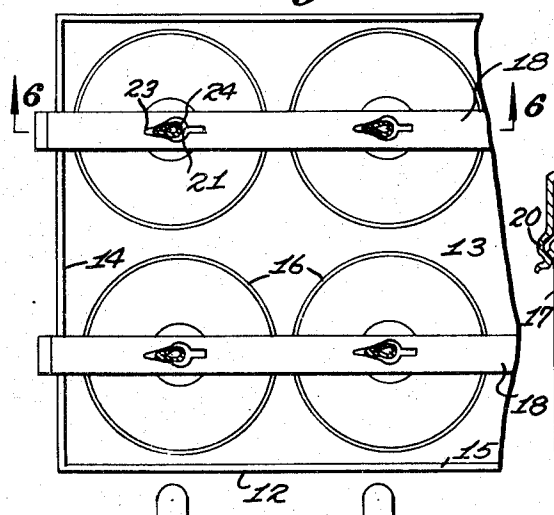


Fig. 6.

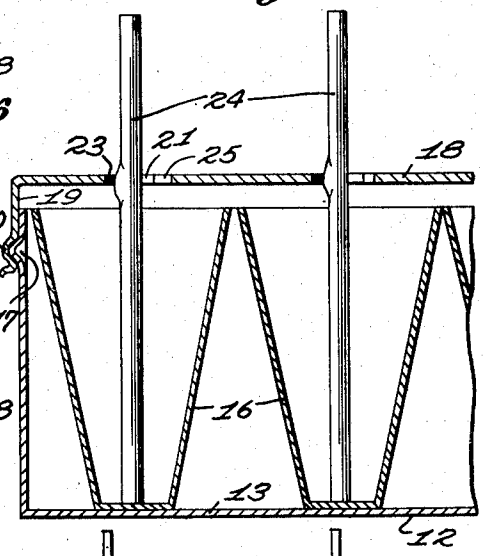


Fig. 3.

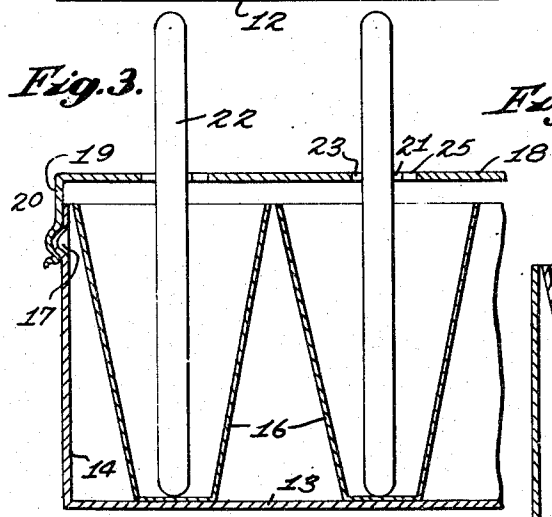


Fig. 4.

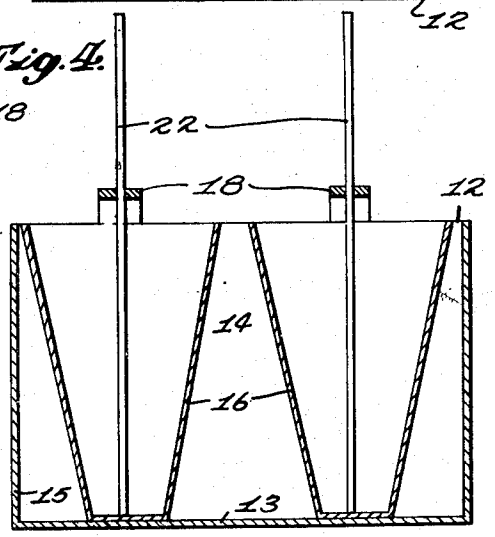
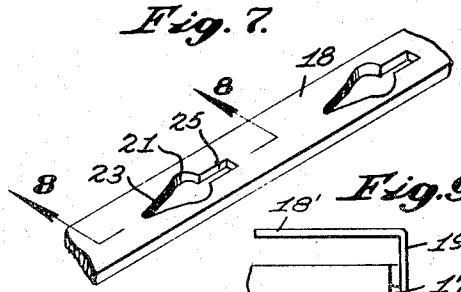


Fig. 7.



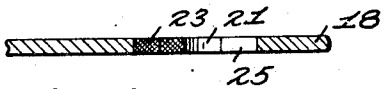
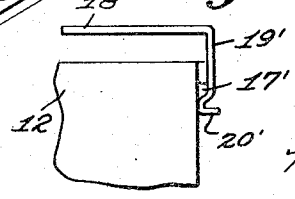


Fig. 8.

Fig. 9.



INVENTOR

ERNEST W. LARKIN

BY

McMorrow, Berman + Davidson

ATTORNEYS

United States Patent Office 2,702,011 Patented Feb. 15, 1955

2,702,011

TRAY AND STICK HOLDER FOR FROZEN CONFECTIONS

Ernest W. Larkin, Washington, N. C.

Application November 2, 1951, Serial No. 254,599

1 Claim. (Cl. 107—19)

This invention relates to freezer devices, and more particularly to an improved freezer mold apparatus adapted to be employed for forming frozen articles of the "popsicle" type.

The main object of the invention is to provide novel and improved mold device adapted to be employed for forming frozen articles of the "popsicle" type, said device being simple in construction, enabling a large number of articles to be simultaneously molded, and enabling the frozen articles to be readily removed from the device after they have achieved their desired degree of hardness.

A further object of the invention is to provide an improved freezer device adapted to be employed in a home freezer for molding frozen articles of the "popsicle" type, the improved device involving inexpensive components, being rugged in construction, being easy to manipulate, and enabling the user thereof to readily form frozen articles of the "popsicle" type, or similar articles in a convenient and sanitary manner and without waste of the ingredients of the articles.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a top plan view of an improved home freezer mold device constructed in accordance with the present invention.

Figure 2 is a longitudinal vertical cross sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a fragmentary longitudinal vertical cross sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a vertical transverse cross sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a fragmentary top plan view similar to Figure 1 but showing the use of hollow tubular drinking straws instead of paddles for the supporting stems of the frozen articles.

Figure 6 is a cross sectional view taken on the line 6—6 of Figure 5.

Figure 7 is an enlarged fragmentary perspective view of the stem-supporting strap member employed in Figures 1 to 6.

Figure 8 is an enlarged cross sectional detail view taken on the line 8—8 of Figure 7.

Figure 9 is a fragmentary elevational view of an upper end portion of a modified form of freezer apparatus according to the present invention.

Referring to the drawings, and more particularly to Figures 1 to 8, the apparatus is generally designated at 11 and comprises a generally rectangular tray 12 having the bottom wall 13, the end walls 14, 14 and the longitudinal side walls 15, 15. Secured in the tray 12 are the two rows of longitudinally aligned, downwardly tapering molds 16, said rows being parallel and arranged longitudinally in the manner shown in Figures 1 and 2, and terminating at the top plane of the tray, as shown in Figures 2 and 3, whereby the molds may be filled substantially flush with said top plane. The upper portions of the end walls 14, 14 are formed with outwardly pressed projections or lugs 17, a pair of said projections 17 being provided in the respective end walls in longitudinal alignment with each of the rows of molds 16, as is clearly shown in Figure 2. Designated at 18, 18 are respective strap members which may be made of suitable flat bar stock, said strap members being formed at their ends with depending resilient arms 19, 19, said

arms being formed at their lower end portions with the corrugations 20 adapted to lockingly engage with the projections 17, in the manner shown in Figure 2, to support the strap members 18 in longitudinally extending horizontal positions elevated above the top plane of the tray 12, as shown. Each of the strap members 18 is formed with the spaced apertures 21 adapted to receive a paddle or other suitable stem element for holding a frozen article, as for example paddles 22 shown in Figures 1 and 2. Each aperture 21 comprises a tapered end portion 23 which is adapted to frictionally engage and hold a paddle 22 or a similar stem element, as for example a hollow drinking straw 24 shown in Figures 5 and 6, the apertures 21 and their tapered portions 23 being arranged so that the stem element secured in said tapered portions will depend substantially centrally and axially through the molds 16, as shown in Figures 1 through 6. The tapered portions 23 are therefore located substantially in the vertical axes of the respective molds 16. Said tapered portions are preferably roughened to provide frictional gripping surfaces for frictionally engaging the paddles 22 or the tubular drinking straws 24.

As shown in Figures 1 and 7, the apertures 21 include the rectangular slot portions 25 opposite the tapered gripping portions 23 to facilitate the insertion into the apertures of the paddles 22 and the subsequent movement of the paddles into frictional engagement in the tapered gripping portions 23 of said apertures.

In using the freezer device, the paddles or other stem elements, as for example the collapsible drinking straws 24 are secured in the apertures 21 in vertical positions and depending into the molds 16, as shown in Figure 3 or in Figure 6, the resilient depending arms 19, 19 of the strap members being, of course, engaged at their corrugations 20 with the projections 17 of the end walls 14, 14 of the tray to thereby support the strap members 18 in horizontal elevated positions relative to the top plane of the tray. The molds 16 may then be filled with the material to be frozen, such as water ice, ice cream, or the like, and the filled tray is then placed in a freezer to congeal the material. After the material has hardened, the tray is removed from the freezer and the strap members 18 are disengaged from the end walls of the tray and elevated, whereby the frozen articles are lifted out of the molds 16. The frozen articles may then be removed from the strap members 18 by disengaging the stem portions, such as the paddles 22 or the collapsible straws 24 from the tapered gripping portions 23 of the apertures 21.

In the form of the invention shown in Figure 9, the end walls of the tray 12 are formed with outwardly pressed projections 17', and the strap members, designated at 18' are provided at their ends with depending resilient arms 19' formed with outwardly facing, inwardly projecting loops 20' adapted to grippingly engage around the projections 17', as shown in Figure 9. The strap member 18' is supported in horizontal elevated position by the resilient, frictional engagement of the strap members 19' with the projections 17', and said strap member may be detached from the tray 12 by flexing the arm 13' outwardly sufficiently to release the clamping engagement of said arms 19' with the end walls of the tray.

While certain specific embodiments of an improved freezer device for forming articles of the "popsickle" type have been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claim.

What is claimed is:

In a freezer device, a tray having spaced end walls, and a strap member positioned above the top of said tray and extending between and secured to said end walls, said strap member being provided with a plurality of apertures arranged in spaced relation therealong for receiving and supporting stem elements in upright positions, each aperture having convergent roughened walls for frictionally engaging the adjacent portion of a stem element when received and supported in the aperture in

an upright position, and having a straight slot portion opposite the intersection of the convergent walls.

References Cited in the file of this patent

UNITED STATES PATENTS

1,470,524	Burt	Oct. 9, 1923
1,983,704	Penrose et al.	Dec. 11, 1934
2,003,517	Schnaier	June 4, 1935
2,019,875	Suiter	Nov. 5, 1935
2,175,324	Stamp	Oct. 10, 1939
2,285,149	D'Arcey	June 2, 1942
2,320,985	Overland	June 1, 1943