Dec. 13, 1955 N. Z. GRASSO 2,726,446

ICE CUBE CRACKER

Filed July 14, 1952

Fig. 1.

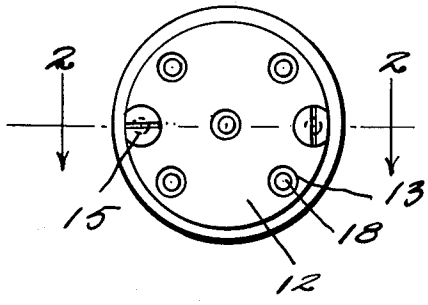


Fig. 2.

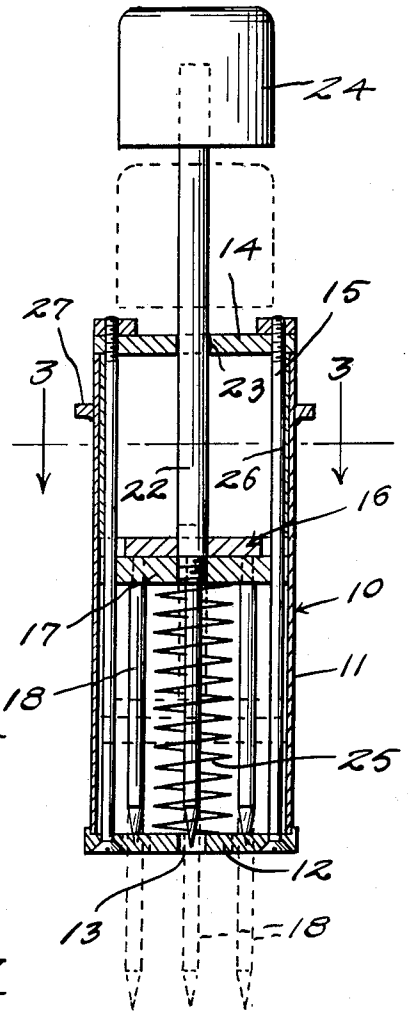


Fig. 3.

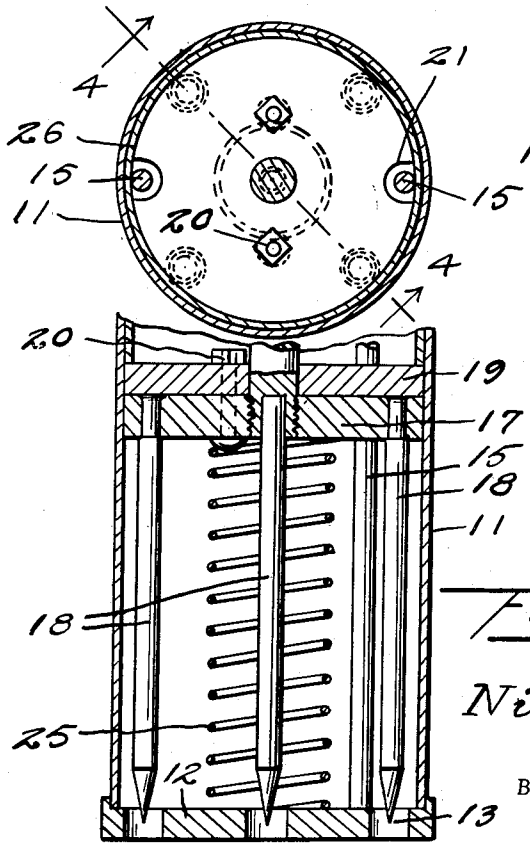


Fig. 4.

INVENTOR

Nicholas Z. Grasso

BY Kimmel & Crowell

ATTORNEYS

United States Patent Office 2,726,446 Patented Dec. 13, 1955

2,726,446

ICE CUBE CRACKER

Nicholas Z. Grasso, Hollis, N. Y.

Application July 14, 1952, Serial No. 298,821

4 Claims. (Cl. 30—164.8)

This invention relates to an ice cube cracker.

An object of this invention is to provide an ice cracker designed particularly for cracking ice cubes which includes a housing having a spring-pressed plunger with a plurality of prongs adapted to be projected from the housing when the plunger is moved so as to crack ice cubes into small pieces.

Another object of this invention is to provide an ice cube cracker which is simple in construction.

A further object of this invention is to provide an ice cube cracker wherein the prongs are normally housed in a cylindrical housing so that the prongs will be protected when the device is not in use.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawing and specification, and then more particularly pointed out in the appended claims.

In the drawing:

Figure 1 is a bottom plan view of an ice cube cracker constructed according to an embodiment of this invention,

Figure 2 is a sectional view taken on the line 2—2 of Figure 1,

Figure 3 is a sectional view taken on the line 3—3 of Figure 2,

Figure 4 is a fragmentary sectional view on an enlarged scale, taken on the line 4—4 of Figure 3.

Referring to the drawing, the numeral **10** designates generally a cylindrical housing which is formed of a cylindrical side wall **11**, a lower head **12** having a plurality of openings **13**, and an upper head **14**. While the side wall **11** is herein shown as being cylindrical, this side wall may be square, octagon or any other shape. The heads **12** and **14** are secured to the ends of the side wall **11** by means of a pair of elongated bolts **15**. It will be understood that the heads **12** and **14** may be secured to the side wall **11** by either the bolts **15**, or by soldering, welding, press fit or the like.

A plunger generally designated as **16** is slidable within the housing **10** and is formed of a lower disc-shaped plate **17** having a plurality of elongated prongs **18** secured thereto. The prongs **18** are disposed in alignment with the openings **13** so that downward movement of the plunger **16** will provide for projection of the prongs **18** below the lower head **12**. The prongs **18** are fixed in the lower plate, **17**, and an upper plate **19** is secured by fastening means **20** to the upper or inner side of the plate **17**. The two plates **17** and **19** are formed with diametrically opposed channels **21** through which the bolts **15** loosely engage.

A plunger rod **22** is fixed to the center of the heads **17** and **19** and slidably engages through an opening **23** formed in the upper head **14**. A knob **24** is fixed to the outer end of the rod **22** so that the plunger **16** may be forcibly moved downward against the tension of a spring **25**. The spring **25** is interposed between the lower head **12**, engaging about the center one of the prongs **18** and engaging at its upper end against the lower head or plate

17 of the plunger **16**. The plunger **16** is limited in its upward movement by means of an inner shell **26** which is disposed within the side wall **11** and bears at its upper end against the upper head **14**.

An annular rib **27** is carried by the side wall **11** adjacent the upper end thereof for providing a grip to hold the side wall **11** against slipping in at least one direction when gripped in the hand.

In the use and operation of this device, the lower head **12** is disposed against the ice cubes which are to be broken and the housing **10** may be grasped in one hand and the knob **24** pushed downwardly or struck with one hand so as to forcibly eject the prongs **18** through the openings **13** and into the ice cube or cubes. There may be as many of these prongs **18** as may be desired so that the ice cubes may be broken into relatively small pieces with one movement of the plunger **16**.

The device herein disclosed can be used for ice, or any other crystallized or brittle object. The object article will be broken by a simple stroke of the plunger, and the latter will automatically return to the interior of the housing.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

What I claim is:

1. An ice cube cracker comprising an elongated cylindrical housing having opposed open ends, a closure member for each of said ends, means extending between and connected with each of said closure members to clamp said housing therebetween, one of said closure members having a centrally positioned aperture extending transversely thereof and the other of said closure members having an aperture extending transversely therethrough aligned with said first aperture and having a lesser diameter, said other closure member having a plurality of apertures extending transversely thereof and radially spaced from said central aperture formed therein, a substantially circular plunger mounted for reciprocation within said housing and having a centrally disposed threaded aperture formed therein aligned with said first and second centrally positioned apertures, an elongated plunger rod having a threaded connection with said threaded aperture and having its ends extending on opposite sides of said plunger, one of said ends extending through said central aperture formed in said one closure member, and the other of said ends being reduced in diameter to form a prong aligned with said aperture formed in said second closure member, said plunger having a plurality of circumferentially spaced prongs secured thereto and depending therefrom, each of said last named prongs being aligned with one of said radially spaced apertures formed in said other closure member, a helicoidal spring disposed intermediate said plunger and said other closure member, said spring surrounding said centrally positioned prong and constantly tending to urge said plunger away from said other closure member and to retract said prongs into said housing, means on said housing for limiting the movement of said plunger away from said other closure member, and handle means secured to said one end of said handle member.

2. An ice cube cracker comprising an elongated cylindrical housing having opposed open ends, a closure member for each of said ends, means extending between and coacting with said closure members to clamp said housing therebetween, one of said closure members having a centrally positioned aperture, the other of said closure members having a plurality of spaced apertures, a plunger mounted for reciprocation in said housing, a plunger rod having an end thereof secured to said plunger and its other end extending through said central aperture, a handle mounted on said other end of said piston rod, a

plurality of prongs depending from said plunger and aligned with said apertures formed in said other closure member, and resilient means interposed between said plunger and said other closure member constantly tending to urge the former away from the latter and to retract said prongs into said housing.

3. An ice cube cracker as defined in claim 1, and said first means including a pair of elongated bolts extending longitudinally of said housing, and said plunger having a pair of diametrically opposed openings extending therethrough to loosely receive said bolts whereby said bolts and said apertures formed in said plunger coact to maintain said tines aligned with their respective apertures formed in said other closure member.

4. An ice cube cracker as defined in claim 2, and said first means including a pair of elongated bolts extending

longitudinally of said housing, and said plunger having a pair of diametrically opposed openings extending therethrough to loosely receive said bolts whereby said bolts and said apertures formed in said plunger coact to maintain said tines aligned with their respective apertures formed in said other closure member.

References Cited in the file of this patent

UNITED STATES PATENTS

1,103,132	Deininger	July 14, 1914
1,701,771	Di Stefano	Feb. 12, 1929
2,310,224	Edwards	Feb. 9, 1943

FOREIGN PATENTS

325,533	France	Jan. 22, 1903
600,192	France	Nov. 3, 1925