HOLLOW POLYETHYLENE ROLLING PIN

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Field of Search ......................................... 107/50

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ABSTRACT
An improved rolling pin is provided which includes a hollow cylindrical center member formed of polyethylene and adapted to contain a freezable gel which includes an aqueous cellulosic filler. A pair of hollow handles are provided for sealing the ends of the hollow cylindrical center member. The hollow handles are adapted to contain an insulating material such as polystyrene for insulating the freezable gel.

5 Claims, 2 Drawing Figures
3,653,338

HOLLOW POLYETHYLENE ROLLING PIN

BACKGROUND OF THE INVENTION

The present invention relates to an improved rolling pin article. It is well known in the prior art to provide a rolling pin article which includes generally a center cylindrical member and two handles, one at either end of the center member. The handles are provided to be gripped by the operator who may roll out and shape a piece of dough such as a pie crust or the like. One problem with such rolling pins is related to the release characteristics of the rolling pin surface. An uneven rolling pin surface or a warm rolling pin surface generally results in the sticking of the doughy material to the rolling pin.

To remedy this problem, rolling pins have been provided with hollow center sections which contain dry ice or water for chilling the surface of the rolling pin. Other rolling pins have been provided with smooth surface. For example, one such pin employs a thin film of polytetra-fluoroethylene, which is produced by E. I. du Pont de Nemours & Company under the trademark TEFLON.

Such rolling pins, while functioning generally to provide improved release characteristics for the surface of the rolling pin, have disadvantages. For example, a rolling pin which uses water, ice or dry ice as a coolant, must have the coolant replaced from time to time. A disadvantage of a material such as dry ice is that it produces carbon dioxide gas on heating which can build up to undesirable pressures within the rolling pin.

Accordingly, it is desirable to provide a rolling pin having a smooth rolling surface and containing coolant for maintaining the surface of the pin in a chilled condition and which may be reused time and again without replacing the coolant contents of the pin. It is also desirable to provide such a rolling pin having handles connected thereto which provide insulators to prevent heat from being transferred to the coolant from the ends of the rolling pin.

SUMMARY OF THE INVENTION

The present invention relates generally to an improved rolling pin article comprising a hollow cylindrical member formed of polyethylene having a first and second end, a freezable gel including an aqueous cellulose filler contained within the hollow cylindrical member and a pair of handles adapted to seal the ends of the hollow cylindrical member so that the gel may be contained securely within the cylindrical member.

In a preferred embodiment, the cellulosic filler includes p-hydroxybenzoic acid methyl ester. Also, in a preferred embodiment each of the handles of the rolling pin is hollow and includes an insulating plug contained therein and formed of polystyrene.

BRIEF DESCRIPTION OF THE DRAWINGS

There follows a brief description of the drawings showing a presently embodiment of the present invention wherein like numerals refer to like elements and wherein:

FIG. 1 is a perspective view of the rolling pin of this invention; and

FIG. 2 is a cross section view of the rolling pin of FIG. 1 taken along the line 2-2.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in FIG. 1, the improved rolling pin 10 of this invention includes a hollow cylindrical member 12. Connected to the ends 14 and 16 of the member 12 are handles 18 and 20. The rolling pin is designed so that the operator may grip the handles 18 and 20 and rotate the surface 22 of the hollow cylindrical member 12 over a doughy material such as pie crust or the like (not shown).

As may be seen from the cross sectional view of FIG. 2, the center member 12 defines a cavity 24 therein. The section 12 itself is formed of polyethylene, a tough and flexible material. The cavity 24 defined in the center member 12 is adapted to receive a freezable gel for cooling the surface 22 of the member 12. This gel is preferably a cellulosic filler and includes a preservative to enable the gel to be reused without spoiling. An example of one composition of the gel is as follows:

<table>
<thead>
<tr>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSO₃ (Water)</td>
<td>50 gallons</td>
</tr>
<tr>
<td>p-hydroxybenzoic acid</td>
<td></td>
</tr>
<tr>
<td>methylester</td>
<td>8 lbs. 9 oz.</td>
</tr>
<tr>
<td>Cellulose Ether</td>
<td>1 oz.</td>
</tr>
<tr>
<td>NaCl (Sodium Chloride)</td>
<td>1/4 oz.</td>
</tr>
</tbody>
</table>

A slight amount of blue food coloring of the type readily available may be added to color the gel. This gel, when contained within the hollow center member 12, may be easily frozen in a housewife’s freezer. It has the characteristic of absorbing heat slowly after having been frozen so that when it is contained in the hollow center member 12, it maintains the surface 22 of the member 12 in a chilled condition for a substantial time. Also, the rolling pin of this invention with the gel as described can be reused numerous times. In fact, it has been found that a rolling pin and gel made according to the principles of this invention may be reused periodically for a period of two years with no damage being done to the gel or to its heating characteristics or to the rolling pin.

Since the handles 18 and 20 of the rolling pin 10 are identical, the description of handle 18 will be equally applicable to handle 20. Handle 18 is a hollow tapering member formed of polyethylene. The handle 18 contains a plug 26 of polystyrene which is sold commercially by the Dow Chemical Company under the trade name STYROFOAM. The polystyrene provides a good seal for the gel contained in the center section 12 as well as an excellent insulator preventing heat from dissipating from the end 14 of the rolling pin 10.

A knurled cap 28 of plastic or other suitable material is threadably connected to the end of the handle 18 to secure the tapered plug 26 within the handle 18. Thus, the tapered plug 26 may be installed within the handle 18 merely by inserting the plug 26 in the handle 18 and screwing on the cap 28. While in the foregoing there has been described a presently preferred embodiment of the present invention, it is to be understood that modifications may be made to this invention by those skilled in the art without departing from the true spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. An improved rolling pin article comprising, in combination:
   a. a hollow cylindrical member formed of polyethylene having a first and a second end;
   b. a freezable gel including an aqueous cellulosic filler contained within said hollow cylindrical member, and a pair of handles adapted to seal said ends of said hollow cylindrical member such that said gel may be contained securely within said member.
   2. The rolling pin as set forth in claim 1 wherein said cellulosic filler is p-hydroxybenzoic acid methyl ester.

3. The rolling pin as set forth in claim 1 wherein said gel includes Cellulose Ether.

4. The rolling pin as set forth in claim 1 wherein said polystyrene plug is formed of polystyrene.

5. The combination as set forth in claim 4 wherein each of said insulating plugs are formed of polystyrene.

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