METHOD FOR PACKAGING OR PREPARING A
GROUP OF FORMED PIECES OF EDIBLE
DOUGHY MATERIAL READY FOR COOKING

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This invention relates to, generally, the preparation and production of dough for making cookies and biscuits, and more particularly to the method and means of grouping together as a unit a number of such doughy pieces on respective single carrier sheets and bonding them to the sheet to prevent their shifting or sticking together during transportation and handling; and further relates to the production of a package containing a plurality of said carrier sheet units disposed in layers.

It is an object of the present invention to provide upon a carrier sheet of suitable material a plurality of doughy pieces conditioned ready for cooking, baking or setting while still on said carrier sheet.

It is a further object of the present invention to provide carrier sheets containing ready to cook or bake cookies for packaging in layers within a container.

It is another object of the present invention to provide a method for making ready such carrier sheets for deposit in layers in a container.

A still further object of the present invention is to condition the carrier sheet upon which the doughy pieces are deposited, either before or after the deposit, so that the doughy pieces may sufficiently adhere to the carrier sheet layer to maintain the same in spaced relation thereon and in fixed position until packed in a container. A still further object of the present invention is to heat the carrier sheet before, after or at the time the doughy pieces are being deposited upon said carrier sheet to anchor or stick the pieces to the carrier sheet and thus prevent the pieces from shifting while the carrier sheets are being packed or being handled.

Yet another object of the present invention is to facilitate such anchoring by applying a relatively slight pressure to the doughy pieces after they have been deposited upon the carrier sheet.

A still further object of the present invention is to produce a package containing a number of layers of carrier sheets, each carrier sheet containing a plurality of doughy pieces for making cookies, the carrier sheets being made of a material, for example, foil, metallized paper or other paper which may be placed in an oven or other suitable heating apparatus to cook or bake the doughy pieces thereon.

It has been found that to prepare such formed doughy or confection pieces for packaging and ready use when unpacked, the formed doughy pieces should be deposited on a thin, flexible supporting carrier sheet such as metal foil, metallized paper, etc., and that in order to prevent the formed doughy pieces from shifting, the carrier sheet should be treated either by heating or spraying with a suitable substance and preferably the doughy pieces should be pressed against the supporting carrier sheet, for example, with a pressure roller, to facilitate or aid adherence of the pieces to the carrier sheet.

Advantages of the foregoing are to prevent the doughy pieces from shifting or disarranging or sticking together in the package during transportation etc.; also when, say, for example, a housewife desires to bake the cookies or other products, all she need do is to withdraw the carrier sheets from the package and place them in the oven. The pieces being adhered to the carrier sheets the same is thus prevented from shifting or from sticking together.

The above and further objects and advantages are attained by the invention herein disclosed. The drawings show one practical application by which the invention may be realized.

In the drawings:

Fig. 1 is a perspective view of a machine capable of carrying out the invention; and

Fig. 2 is a perspective view of a carrier sheet unit having adhered thereto a group of doughy pieces ready for cooking, baking or setting.

Referring now more in detail to the drawing, there is illustrated in Fig. 1 a schematic layout of a biscuit or cookie making and stacking machine, comprising a dough container 1, engraved roller 2, feeding roller 3, reciprocating knife scraper 3a, suction roller 3b, conveyor belt 14, container 5 for holding and dispensing tinfoil or other suitable carrier sheet material, pressure roller 6, wax paper container and dispenser 7, carrier sheet feeder 8, wax paper feeder 9, stacking container 10, second conveyor belt 4, and heating unit comprising the heating elements 15 and 16, and base or bed 17.

The doughy material is placed in container or hopper 1 and fed by feeding roller 3 into the forms 2a on engraved roller 2. The reciprocating scraper knife 3a scrapes off the excess dough above the forms 2a and as the engraved roller rotates, the suction roller 3b which may be rubber, and is located between the top and bottom portions of conveyor belt 14 and rotates in the opposite direction to the engraved roller 2, sucks out the formed doughy pieces from the forms 2a onto the top portion of belt 14. Hopper or container 5 deposits carrier sheets of tinfoil like onto conveyor belt 4 and the formed doughy pieces are deposited from belt 14 onto the carrier sheets 11 as the latter are conveyed by belt 4. Below conveyor belt 4, there is disposed a heating unit 15, 16 which although shown in the drawing as burners 16 and plate 15, may be any suitable electric or other heating device. Mounted on base or bed 17 is the pressing roller 6. The heating unit heats the belt 4, the heat being transferred to the foil or paper 11 and as the loaded carrier sheets pass under pressure roller 6, the latter presses lightly the formed doughy pieces to the sheets 11. Thus, by heating the carrier sheets 11 and applying pressure to the formed doughy pieces, the latter are anchored to the sheet.

The conveyor belt 4 now causes the filled carrier sheets 11 to travel to a position in front of wax paper dispenser 7 and the wax carrier sheets 12 are deposited upon the filled sheets 11 after which the latter are deposited in layers in container 10.

It is to be understood that in lieu of using the sheets 11 and 12 already cut, there may be provided means for continuously feeding the sheets from a roll or rolls and then the continuous web or webs of material may be later cut, manually or automatically by any suitable mechanism.

The packaged goods are ready for use. They will be vended in stores and all that the purchaser would have to do is open the package, withdraw the sheet layers successively and place them in the oven.

While the invention has been described and illustrated with respect to a particular preferred embodiment, it will be understood by those skilled in the art after understanding the principle of the invention, that various
changes and modifications may be made without depart-
ing from the spirit and scope of the invention and it is
intended therefore in the appended claims to cover all
such changes and modifications.

What is claimed is:

1. A method for packaging a group of formed doughy
pieces ready for cooking comprising heating a carrier
sheet, depositing on said carrier sheet the said doughy
pieces which adhere thereto because of said heat, apply-
ing pressure to the deposited doughy pieces to facilitate
adhering thereof to the said carrier sheet, and depositing
a plurality of said carrier sheets having the doughy pieces
adhered thereto in stacked array in a container.

2. In a method for preparing a group of pieces of
doughy material to be transported for a subsequent heat
application to make the same edible, said doughy material
being adapted to adhere to a surface upon application of
heat, steps which comprise continuously transporting a
carrier sheet, heating the carrier sheet, depositing edible
pieces on the heated carrier sheet, applying pressure to
the pieces, and collecting said sheets in a stacked array.

3. In a method for preparing a group of pieces of
doughy material to be transported for a subsequent heat
application to make the same edible, said doughy mater-
ial being adapted to adhere to a surface upon applica-
tion of heat, steps which comprise continuously transpor-
ting carrier sheet material, depositing said pieces of
doughy material on said sheet material, and heating the
undersurface of said pieces of doughy material whereby
the latter is made to adhere to said sheet material.

4. In a method for preparing a group of pieces of
doughy material to be transported for a subsequent heat
application to make the same edible, said doughy mater-
ial being adapted to adhere to a surface upon applica-
tion of heat, steps which comprise continuously transpor-
ting carrier sheet material, depositing said pieces of
doughy material on said sheet material, heating the undersur-
face of said pieces of doughy material whereby the latter
is made to adhere to said sheet material, and applying pres-
sure to said pieces of doughy material to cause further
adherence of the latter to said sheet material.

5. In a method for preparing a group of pieces of
doughy material to be transported for a subsequent heat
application to make the same edible, said doughy mater-
ial being adapted to adhere to a surface upon applica-
tion of heat, steps which comprise continuously transpor-
ting carrier sheet material, depositing said pieces of doughy
material on said sheet material, heating the undersur-
face of said pieces of doughy material whereby the latter
is made to adhere to said sheet material, applying pres-
sure to said pieces of doughy material to cause further
adherence of the latter to said sheet material, and col-
llecting groups of said pieces of doughy material in their
sheet-adhered state in stacked array.

6. In a method for preparing a group of pieces of
doughy material to be transported for a subsequent heat
application to make the same edible, said doughy material
being adapted to adhere to a surface upon application of
heat, steps which comprise continuously transporting car-
rier sheet, heating the carrier sheet, depositing on said
heated sheet the doughy pieces which adhere thereto be-
cause of said heat, applying pressure to the pieces by
means of a roller to further cause the pieces to adhere,
and depositing in stacked array groups of doughy pieces
in their sheet-adhered state in a container.

7. A method of packaging a group of formed pieces of
edible doughy material and maintaining said pieces in
fixed position, which comprises depositing upon a carrier
sheet the said pieces, applying heat to cause said pieces
to adhere to said sheet in said fixed position, and depos-
ting said carrier sheet having the doughy pieces adhered
thereto in a container.

8. In a method for preparing a group of pieces of
doughy material to be transported for a subsequent heat
application to make the same edible, said doughy mater-
ial being adapted to adhere to a surface upon applica-
tion of heat, steps which comprise depositing upon a trans-
portable carrier sheet said pieces, and applying heat to
said pieces to adhere to said sheet whereby shifting of
said pieces on said sheet may be prevented and transpor-
tation of said sheet may be facilitated.

References Cited in the file of this patent

UNITED STATES PATENTS
454,278 Knopp -------------- June 16, 1891
623,696 Perky -------------- May 13, 1899
836,270 Peters ------------- Dec. 11, 1906
1,561,301 Bausman --------- Nov. 10, 1925
1,675,415 Liebrich -------- July 3, 1928
1,811,772 Willoughby ------ June 23, 1931
1,861,124 Lorber ----------- May 31, 1932
2,024,809 Schell ----------- Dec. 17, 1935
2,165,154 de Freese ------- July 4, 1939
2,394,795 Manspeaker ------- Feb. 12, 1946
2,451,318 Burtiner -------- Oct. 12, 1948
2,503,771 Roll ------------ Apr. 11, 1950
2,519,491 Monaco --------- Aug. 22, 1950
2,542,330 Henderson et al. Feb. 20, 1951
2,555,033 Harris --------- May 29, 1951
2,575,703 Carruthers ---- Nov. 20, 1951
2,610,591 Krieg et al. ----- Sept. 16, 1952
2,628,907 Darden ---------- Feb. 17, 1953

OTHER REFERENCES
"The Joy of Cooking," by Rombauer and Becker, 1953,
pp. 668-669.