

AUSTRALIA
PATENTS ACT 1990
PATENT REQUEST: STANDARD PATENT

650144

We, FRISCO-FINDUS AG, a Swiss body corporate, being the person identified below as the Applicant, request the grant of a patent to the person identified below as the Nominated Person, for an invention described in the accompanying standard complete specification.

Full application details follow.

Applicant: FRISCO-FINDUS AG

Address: Rorschach, Switzerland

Nominated Person: As above

Address: As above

Invention Title: "FROZEN MEAL"

Names of actual inventors: Lars Erik Anders Hansson and Sven Ingemar Palmquist

BASIC CONVENTION APPLICATION DETAILS:

Application Number: 91110859.5

Country: European Patent Office (Designating Switzerland)

Country Code: EP

Date of Application: 1st July 1991

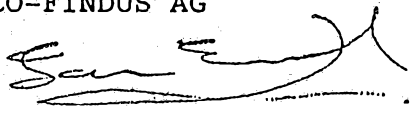
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8030214 22/06/92

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DATED this 22nd Day of June, 1992
FRISCO-FINDUS AG

by 

Fellow Institute of Patent Attorneys of Australia
of SHELSTON WATERS

To: The Commissioner of Patents
WODEN ACT 2606

File: D.B. F-212

Fee: \$208.00

(CONVENTION — Company)

FORM 8 — REGULATION 12 (2)

COMMONWEALTH OF AUSTRALIA PATENTS ACT, 1952-1973
DECLARATION IN SUPPORT OF A CONVENTION APPLICATION FOR A PATENT

In support of the Convention Application No. made
(In full) by (a) FRISCO-FINDUS AG
any.
(hereinafter referred to as "Applicant") for a patent for an invention entitled:
Title of (b) Frozen meal
.....
(c) Andrzej LEDZION, of En la Priauraz, 1807 BLONAY, Switzerland

are insert
Address
Official
make

of (d)

do solemnly and sincerely declare as follows:

1. I am authorised by Applicant to make this declaration on its behalf.
2. The basic Application as defined by section 141 of the Act was/were made
in (e) the European Patent Office on the 1st day of July 1991
Office designation, Switzerland
..... on the day of 19...
by (f) FRISCO-FINDUS AG
3. (g) Lars Erik Anders HANSSON Sven Ingemar PALMQUIST
Skanegatan 14 Björkgatan 19
S-262 43 ÄNGELHOLM S-267 00 BJUV
of Sweden Sweden

rt Basic
Countries
or dates
cation(s).

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licant(s)

(In full)
dress of
or

..... is/are
the actual Inventor(s) of the invention and the facts upon which Applicant is entitled to
make the Application are as follows:

Applicant is the Assignee of the said Inventor(s).

4. The basic Application(s) referred to in paragraph 2 of this Declaration was/were
the first Application(s) made in a Convention country in respect of the invention, the
subject of the Application.

DECLARED at Vevey, Switzerland

this day of 19...

nature
O seal,
ation).

16 JUN 1992

(h)

(Signature of Declarant)

To THE COMMISSIONER OF PATENTS.

SHELSTON WATERS

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Cables: 'Valid' Sydney Telex: 24422



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(12) PATENT ABRIDGMENT (11) Document No. AU-B-18462/92
(19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 650144

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- (71) Applicant(s)
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- (74) Attorney or Agent
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- (56) Prior Art Documents
JP 3-061447
JP 1-120265
- (57) Claim

1. A process for preparing a frozen meal which comprises cooking pieces of meat, cooling to at least a chilled temperature, adding a thickening agent in gelled form, mixing, forming into a block, freezing and finally packing with one or more frozen vegetables.

6. A process according to any one of claims 1 to 5 wherein the thickening agent is gelatin.

The present invention relates to a frozen meal, more particularly to a process for preparing a frozen meal containing meat pieces and one or more vegetables.

5 In the preparation of frozen meals for the food service industry such as aircraft meals containing meat with, for instance, potatoes and vegetables, pieces of meat are mixed with cooked source, pressed in a standard former into a block, and then frozen and packed with the potatoes and vegetables in alu-trays. The product is
10 normally heated in a convection oven for serving in a tray.

We have found that if the meat pieces are mixed with a sauce and a thickener before pressing in the former, the cooked dish for serving has an attractive
15 appearance whereby the meat pieces in the fluid sauce spread out in the tray.

Accordingly, the present invention provides a process for preparing a frozen meal which comprises cooking pieces of meat, cooling to at least a chilled
20 temperature, adding a thickening agent in gelled form, mixing, forming into a block, freezing and finally packing with one or more frozen vegetables.

The pieces of meat are conveniently dice, chunks, slices, cubes or segments, for instance, of a size
25 normally used in stews or ragout. The pieces of meat may be obtained by dicing meat preferably tempered to a freezing temperature e.g. -1°C to -3°C .

Any kind of meat is suitable in the process, for example, beef, pork, calf, lamb, veal, reindeer or
30 chicken.

Before cooking, the meat pieces are advantageously marinated, for instance, with starch, salt or spices. The marination may be carried out by conventional -----



processes such as vacuum tumbling, soaking or injection. After marination the marinated meat pieces may be browned for instance at about 180° to 220°C for a period of from 1 to 3 minutes advantageously in a square belt oven where the meat pieces are conveyed between two
5 teflon belts through the cooking section.

The meat pieces are then cooked by any conventional method, for example, by adding about 20% water and
10 cooking for from 1 to 2 1/2 hours, more usually from 1 1/2 to 2 hours in the bouillon in a steam cabinet.

After cooking, the meat pieces in the bouillon are cooled conveniently to a temperature from 35° to 45°C,
15 preferably 38° to 42°C.

The thickening agent may be a gelling agent that breaks down during freezing and reheating for consumption such as a gum or a starch e.g. gum arabic or gelatin.
20

Before adding the thickening agent, the meat pieces are preferably separated from the bouillon and the meat pieces may be either chilled or frozen. The bouillon is then used in a sauce e.g. a creamy sauce, to which the
25 thickening agent is added. The amount of bouillon used in the sauce may conveniently be from 10 to 30% by weight. The thickening agent is preferably dissolved or suspended in water at a concentration of from 20 to 30 % by weight and added to the sauce at a temperature from
30 60° to 80°C. The amount of thickening agent is advantageously from 2 to 4% by weight based on the weight of the sauce. The sauce is conveniently prepared and heated to a temperature from 90°C to 95°C and cooked for a period of about 4 to 6 minutes and then
35 cooled, preferably to a temperature from 8°C to 15°C. The cooling of the sauce may be carried out for instance in a scraped surface heat exchanger or in a kettle.

After cooling, the sauce containing the thickener is allowed to stand to allow the gel to set e.g. from 15 to 18 hours at a temperature from 6° to 15°C.

5 The mixing of the chilled or frozen meat with the cooled sauce containing the thickening agent may be carried out in a meat mixer with gentle mixing for a short time e.g. from 1 to 3 minutes.

10 When the sauce is cooled in a scraped surface heat exchanger, the gel strength is reduced and it is preferably mixed with frozen meat whereas when the sauce is cooled in a kettle the gel strength is not reduced and it may be mixed with chilled meat e.g. at a
15 temperature from 1°C to 4°C. The use of chilled meat rather than frozen meat is less costly and less water is lost during the chilling process compared with freezing.

After mixing, the meat pieces may be formed in a former
20 to blocks of a standard size before freezing and packing with vegetables such as frozen cooked potatoes, cabbage, carrots, peas, beans, sprouts, brocolli etc.

The following Example further illustrates the present
25 invention.

Example

Beef was tempered to -2°C and diced to pieces having
30 dimensions of 15 x 20 x 28 mm. The diced pieces were then marinated in starch, salt and spices by vacuum tumbling for 10 minutes at 5°C and then browned in a square belt oven for 2 minutes at 200°C. The browned
35 diced meat was then cooked in a bouillon in a steam cabinet. After cooking the meat was cooled to 40°C and the bouillon separated from the meat. The diced meat pieces were chilled to + 2°C while the bouillon was used in an amount of 20% as an ingredient in a sauce to which

3% by weight of gelatin was added at 75°C. The gelatin was added solubilised in warm water at 60°C at a concentration of 25 g/100 g water.

5 After cooking the sauce was cooled and then allowed to stand for 16 hours at 8°C to allow the gel to set. The chilled or frozen meat and garnish were then mixed with the sauce for 1.5 minutes and then formed in a standard forming equipment and frozen into blocks having dimensions of 60 x 70 x 35 mm. The blocks were then
10 packed with e.g. frozen, cooked potatoes and vegetables into trays.

When reheated for consumption in a convection oven, the dish has an attractive appearance whereby the meat
15 pieces in a fluid sauce spread out in the tray.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:-

1. A process for preparing a frozen meal which comprises cooking pieces of meat, cooling to at least a chilled temperature, adding a thickening agent in gelled form, mixing, forming into a block, freezing and finally
5 packing with one or more frozen vegetables.
2. A process according to claim 1 wherein the meat pieces are marinated before cooking.
3. A process according to claim 2 wherein the meat pieces are browned after marination and before cooking.
- 10 4. A process according to any one of claims 1 to 3 wherein the meat pieces are cooked in a bouillon in a steam cabinet.
5. A process according to any one of claims 1 to 4 wherein the cooked meat pieces are cooled to a
15 temperature from 35° to 45°C.
6. A process according to any one of claims 1 to 5 wherein the thickening agent is gelatin.
7. A process according to claim 4 wherein, before adding the thickening agent, the meat pieces are
20 separated from the bouillon and the meat pieces are chilled or frozen.
8. A process according to claim 7 wherein the bouillon is used in a sauce to which the thickening agent has been added.
- 25 9. A process according to claim 8 wherein the thickening agent is added to the sauce as an aqueous solution or suspension at a temperature from 60° to 80°C.
10. A process according to claim 8 or 9 wherein the amount of thickening agent added to the sauce is from 2
30 to 4% by weight based on the weight of the sauce.
11. A process according to any one of claims 8 to 10 wherein after cooking the sauce is cooled in a heat exchanger or a kettle.
12. A process according to claim 11 wherein after
35 cooling, the sauce containing the thickener is allowed to stand to allow the gel to set.
13. A process according to any one of claims 1 to 12 wherein the mixing is carried out in a meat mixer.



14. A process according to claim 13 wherein chilled meat pieces are mixed with a sauce containing the thickening agent which has been cooled in a kettle.
15. A process for preparing a frozen meal,
5 substantially as herein described with reference to the Example.
16. A frozen meal whenever prepared by the process of any one of claims 1 to 15.

DATED this 11th day of March 1994

FRISCO-FINDUS AG

Attorney: IAN T. ERNST

Fellow Institute of Patent Attorneys of Australia
of SHELSTON WATERS



ABSTRACT:

process for preparing a frozen meal which comprises cooking pieces of meat, cooling, adding a thickening agent, mixing, forming into a block, freezing and finally packing with one or more vegetables.

