## CPC  COOPERATIVE PATENT CLASSIFICATION

### A  HUMAN NECESSITIES

#### FOODSTUFFS; TOBACCO

### A23  FOODS OR FOODSTUFFS; THEIR TREATMENT, NOT COVERED BY OTHER CLASSES

**A23B**  PRESERVING, e.g. BY CANNING, MEAT, FISH, EGGS, FRUIT, VEGETABLES, EDIBLE SEEDS; CHEMICAL RIPENING OF FRUIT OR VEGETABLES; THE PRESERVED, RIPENED, OR CANNED PRODUCTS (preserving foodstuffs in general A23L 3/00; preserving in general A61L; applying food preservatives in packages B65D 81/28)

**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/00</td>
<td>General methods for preserving meat, sausages, fish or fish products</td>
</tr>
<tr>
<td>4/002</td>
<td>Preservation in association with shaping</td>
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<tr>
<td>4/005</td>
<td>Preserving by heating</td>
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<tr>
<td>4/0053</td>
<td>{ with gas or liquids, with or without shaping, e.g. in form of powder, granules or flakes</td>
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<tr>
<td>4/0056</td>
<td>{ with packages, or with shaping in the form of blocks or portions</td>
</tr>
<tr>
<td>4/01</td>
<td>by irradiation or electric treatment { with or without shaping, e.g. in form of powder, granules or flakes</td>
</tr>
<tr>
<td>4/012</td>
<td>{ with packages, or with shaping in the form of blocks or portions</td>
</tr>
<tr>
<td>4/015</td>
<td>Preserving by irradiation or electric treatment without heating effect</td>
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<tr>
<td>4/02</td>
<td>Preserving by means of inorganic salts (apparatus therefor A23B 4/26, A23B 4/32)</td>
</tr>
<tr>
<td>4/021</td>
<td>{ with apparatus adapted for gaseous preserving agents</td>
</tr>
<tr>
<td>4/023</td>
<td>by kitchen salt or mixtures thereof with inorganic or organic compounds</td>
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<tr>
<td>4/0235</td>
<td>{ with organic compounds or biochemical products</td>
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<tr>
<td>4/027</td>
<td>by inorganic salts other than kitchen salt, or mixtures thereof with organic compounds, e.g. biochemical compounds</td>
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<tr>
<td>4/03</td>
<td>Drying; Subsequent reconstitution (drying apparatus in general F26B)</td>
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<tr>
<td>4/031</td>
<td>{ Apparatus for drying (A23B 4/037 takes precedence)</td>
</tr>
<tr>
<td>4/033</td>
<td>with addition of chemicals (A23B 4/037 takes precedence)</td>
</tr>
<tr>
<td>4/037</td>
<td>Freeze-drying { i.e. cryodessication, lyophilisation; Apparatus therefor</td>
</tr>
</tbody>
</table>

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**A23B**
4/20 . . . Organic compounds; Microorganisms; Enzymes (acid fermentation A23B 4/12)
4/22 . . . . Microorganisms; Enzymes; {Antibiotics}
4/24 . . . . Inorganic compounds
4/26 . . Apparatus for preserving using liquids ; {Methods therefor}
4/28 . . by injection of liquids
4/285 . . . . {with inorganic salts}
4/30 . . by spraying of liquids
4/305 . . . . {with inorganic salts}
4/32 . . Apparatus for preserving using solids
4/325 . . . . {with inorganic salts}

5/00 Preservation of eggs or egg products (preserving dough or bakery products A21D)
5/005 . . Preserving by heating
5/0052 . . . . {in the shell}
5/0055 . . . . {without the shell}
5/0057 . . . . {with packages}
5/0/1 . . by irradiation or electric treatment
5/015 . . Preserving by irradiation or electric treatment without heating effect
5/02 . . Drying; Subsequent reconstitution
5/022 . . . . {Drying with use of gas or vacuum}
5/025 . . . . {Drying} with addition of chemicals (A23B 5/03, A23B 5/035 take precedence)
5/0255 . . . . {Drying with use of liquids, e.g. by extraction}
5/03 . . Freeze-drying, {i.e. cryodessication, lyophilisation; Apparatus therefor}
5/035 . . . . Spray-drying
5/04 . . Freezing; Subsequent thawing; Cooling
5/041 . . . . {Freezing or cooling without shell} (A23B 5/05 takes precedence)
5/043 . . . . {with packages}
5/045 . . . . Thawing subsequent to freezing
5/05 . . . . {Freezing or cooling} with addition of chemicals
5/055 . . . . with direct contact between the food and the chemical, e.g. liquid nitrogen, at cryogenic temperature
5/06 . . Coating eggs with a protective layer; Compositions or apparatus therefor
5/065 . . . . {Apparatus for coating}
5/08 . . Preserving with chemicals
5/10 . . . . in the form of gases, e.g. fumigation; Compositions or apparatus therefor
5/12 . . . . in the form of liquids or solids
5/14 . . . . Organic compounds; Microorganisms; Enzymes
5/16 . . . . . Microorganisms; Enzymes
5/18 . . . . Inorganic compounds
5/20 . . . . Apparatus for preserving using liquids
5/22 . . . . Apparatus for preserving using solids

7/00 Preservation or chemical ripening of fruit or vegetables
7/005 . . Preserving by heating
7/0053 . . . . {by direct or indirect contact with heating gases or liquids}
7/0056 . . . . {with packages}
7/01 . . by irradiation or electric treatment
7/012 . . . . {with packages}
7/015 . . Preserving by irradiation or electric treatment without heating effect
7/02 . . Dehydrating; Subsequent reconstitution (dried cooked potatoes A23L 19/12)
7/0205 . . . . {by contact of the material with fluids, e.g. drying gas or extracting liquids}
7/021 . . . . {Foam drying}
7/0215 . . . . {Post-treatment of dried fruits or vegetables}
7/022 . . with addition of chemicals {before or during drying, e.g. semi-moist products} (A23B 7/024 - A23B 7/028 take precedence)
7/024 . . Freeze-drying, {i.e. cryodessication or lyophilisation}
7/026 . . Spray-drying
7/028 . . Thin layer-, drum- or roller-drying {or by contact with a hot surface}
7/03 . . Drying raw potatoes
7/04 . . Freezing; Subsequent thawing; Cooling
7/0408 . . . . {the material being transported through or in the apparatus with or without shaping, e.g. in the form of powder, granules or flakes (A23B 7/05 takes precedence; moving on the spot only A23B 7/0425)}
7/0416 . . . . {with packages or with shaping in the form of blocks or portions}
7/0425 . . . . {the material not being transported through or in the apparatus, with or without shaping, e.g. in the form of powder, granules or flakes (A23B 7/05 takes precedence)}
7/0433 . . . . {with packages or with shaping in the form of blocks or portions}
7/0441 . . . . {Treatment other than blanching preparatory to freezing}
7/045 . . Thawing subsequent to freezing
7/05 . . with addition of chemicals {or treatment with chemicals other than cryogenics, before or during cooling, e.g. in the form of an ice coating or frozen block}
7/055 . . . . with direct contact between the food and the chemical, e.g. liquid nitrogen, at cryogenic temperature
7/06 . . Blanching {machines therefor A23N 12/00}
7/08 . . Preserving with sugars (marmalade, jam or fruit jellies A23L 21/10)
7/085 . . . . {in a solution of sugar}
7/10 . . Preserving with acids; Acid fermentation
7/105 . . . . {Leaf vegetables, e.g. sauerkraut}
7/12 . . . . Apparatus for compressing sauerkraut
7/14 . . Preserving or ripening with chemicals not covered by groups A23B 7/08 or A23B 7/10
7/144 . . . . in the form of gases, e.g. fumigation; Compositions or apparatus therefor {cooling without control of atmosphere composition A23B 7/04}
7/148 . . . . in a controlled atmosphere, e.g. partial vacuum, comprising only CO2, N2, O2 or H2O
7/152 . . . . in a controlled atmosphere comprising other gases in addition to CO2, N2, O2 or H2O {; Elimination of such other gases}
7/153 . . . . in the form of liquids or solids
7/154 . . . . Organic compounds; Microorganisms; Enzymes (acid fermentation A23B 7/10)
7/155 . . . . Microorganisms; Enzymes; {Antibiotics}
7/157 . . . . Inorganic compounds
7/158 . . . . Apparatus for preserving using liquids
7/159 . . . . Apparatus for preserving using solids
Coating with a protective layer; Compositions or apparatus therefor

Preservation of edible seeds, e.g. cereals

Processes or apparatus using pressure variation or mechanical force, e.g. shock, acceleration, shear stress, contortion

Preserving by heating

Preserving by irradiation or electric treatment

Preserving by heating

Preserving by irradiation or electric treatment without heating effect

Drying; Subsequent reconstitution

Freezing; Subsequent thawing; Cooling

Thawing subsequent to freezing

Coating with a protective layer; Compositions or apparatus therefor

Preserving with chemicals

in the form of gases, e.g. fumigation;

Compositions or apparatus therefor

in a controlled atmosphere, e.g. partial vacuum, comprising only CO₂, N₂, O₂ or H₂O

in a controlled atmosphere comprising other gases in addition to CO₂, N₂, O₂ or H₂O

in the form of liquids or solids

Organic compounds; Microorganisms; Enzymes

Microorganisms; Enzymes; Antibiotics

Inorganic compounds

Apparatus for preserving using liquids

Apparatus for preserving using solids