

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

LIGHTING; HEATING

F25 REFRIGERATION OR COOLING; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT PUMP SYSTEMS; MANUFACTURE OR STORAGE OF ICE; LIQUEFACTION SOLIDIFICATION OF GASES

F25C PRODUCTION, WORKING, STORING OR DISTRIBUTION OF ICE (frozen sweets, including ice-cream, their production [A23G 9/00](#); concentrating solutions by removing frozen solvents [B01D 9/04](#); purification of water by freezing [C02F 1/22](#); refrigeration machines, plants or systems [F25B](#); solidification of gases or gaseous mixtures [F25J](#); freeze drying [F26B](#))

NOTE

Within the subclass, the term "ice" means any frozen liquid and is to be understood as also covering frozen semi-liquids or pasty substances.

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| 1/00 | Production of ice (F25C 3/00 takes precedence) | 3/04 | . for sledging or ski trails; Production of artificial snow (shape of trails A63C 19/10 ; construction of trails E01C) |
| 1/02 | . Production of natural ice, i.e. without refrigeration | | |
| 1/04 | . by using stationary moulds | | |
| 1/045 | . . {with the open end pointing downwards} | 5/00 | Working, storing or distribution of ice |
| 1/06 | . . open or openable at both ends | 5/002 | . {Distributing ice} |
| 1/08 | . by immersing freezing chambers or plates into water | 5/005 | . . {particularly adapted for household refrigerators} |
| 1/10 | . by using rotating or otherwise moving moulds (F25C 1/08 takes precedence) | 5/007 | . . {for storing bins (ice bins in general F25C 5/182)} |
| 1/12 | . by freezing water on cooled surfaces, e.g. to form slabs | 5/02 | . Tools or machines for disintegrating, removing or harvesting ice |
| 1/125 | . . {on flexible surfaces} | 5/04 | . . without the use of saws |
| 1/14 | . . to form thin sheets which are removed by scraping or wedging | 5/043 | . . . {Tools, e.g. ice picks, ice crushers, ice shavers} |
| 1/142 | . . . {from the outer wall of a cooled body} | 5/046 | . . . {Ice-crusher machines} |
| 1/145 | . . . {from the inner wall of a cooled body} | 5/06 | . . . by deforming bodies with which the ice is in contact, e.g. by inflatable members |
| 1/147 | {by using augers} | 5/08 | . . . by heating bodies in contact with the ice |
| 1/16 | . by partially evaporating water in a vacuum | 5/10 | using hot refrigerant; using fluid heated by refrigerant |
| 1/18 | . of a particular transparency or translucency, e.g. by injecting air | 5/12 | . . . Ice-shaving machines |
| 1/20 | . . by agitation | 5/14 | . Tools or machines for shaping or finishing ice pieces, e.g. ice presses |
| 1/22 | . Construction of moulds; Filling devices therefor (metering by volume in general G01F) | 5/16 | . Tools or devices for ice handling not covered by any other subclass |
| 1/225 | . . {Filling devices for moulds} | 5/18 | . Storing ice |
| 1/24 | . . for refrigerators, e.g. freezing trays | 5/182 | . . {Ice bins (distributing arrangements therefor F25C 5/007)} |
| 1/243 | . . . {of plastic materials} | 5/185 | . . . {combined with freezing trays} |
| 1/246 | . . . {with separate grid structure} | 5/187 | . . . {combined with ice level sensing means} |
| 3/00 | Methods or apparatus specially adapted for the production of ice or snow for winter sports or similar recreational purposes, e.g. for sporting installations; Production of artificial snow (foundations or pavings for artificial surfaces for outdoor or indoor practice of snow or ice sports E01C 13/10; working on surfaces of snow or ice in order to make them suitable for traffic or sporting purposes E01H 4/00) | 2300/00 | Special arrangements or features for production, working, storing or distribution of ice |
| | | 2301/00 | Special arrangements or features for the production of ice |
| 3/02 | . for ice rinks (shape of rinks A63C 19/10 ; construction of rinks E01C) | 2301/002 | . Production of ice slurries |

2303/00 Special arrangements or features for the production of ice or snow for winter sports or similar recreational purposes, e.g. for sporting installations; Special arrangements or features for the production of artificial snow

- 2303/042 . Snow making by using solid ice, e.g. ice crushing
- 2303/044 . Snow making using additional features, e.g. additives, liquid gas
- 2303/046 . Snow making by using low pressure air ventilators, e.g. fan type snow canons
- 2303/048 . Snow making by using means for spraying water
- 2303/0481 . . with the use of compressed air

2305/00 Special arrangements or features for working or distributing ice

- 2305/022 . Harvesting of ice including rotating or tilting or pivoting of a mould or tray

2400/00 Auxiliary features or devices for production, working, storing or distribution of ice

- 2400/02 . Freezing surface state
- 2400/04 . Ice guide, e.g. for guiding ice blocks to storage tank
- 2400/06 . Multiple ice moulds or trays therefor
- 2400/08 . for different type of ice
- 2400/10 . Refrigerator units
- 2400/12 . Means for sanitation
- 2400/14 . Water supply

2500/00 Problems to be solved

- 2500/02 . Geometry problems
- 2500/04 . Calculation of parameters
- 2500/06 . Spillage or flooding of water
- 2500/08 . Sticking or clogging of ice

2600/00 Control issues

- 2600/02 . Timing
- 2600/04 . Control means

2700/00 Sensing or detecting of parameters; Sensors therefor

- 2700/02 . Level of ice
- 2700/04 . Level of water
- 2700/06 . Rotation angle of the ejector ejecting ice from a stationary mould
- 2700/08 . Power to drive the auger motor of an auger type ice making machine
- 2700/10 . Rotating speed of the auger motor of an auger type ice making machine
- 2700/12 . Temperature of ice trays
- 2700/14 . Temperature of water