

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 PRODUCING, WORKING OR HANDLING ICE

NOTE

In this subclass, the following term is used with the meaning indicated:

- "ice" means any frozen liquid and also covers frozen semiliquids or pasty substances.

- 1/00 Producing ice** ([F25C 3/00](#) takes precedence)
- 1/02 . Producing natural ice, i.e. without refrigeration
 - 1/04 . by using stationary moulds
 - 1/045 . . with the open end pointing downwards
 - 1/06 . . open or openable at both ends
 - 1/08 . by immersing freezing chambers {, [cylindrical bodies](#)} or plates into water
 - 1/10 . by using rotating or otherwise moving moulds ([F25C 1/08](#) takes precedence)
 - 1/12 . by freezing water on cooled surfaces, e.g. to form slabs
 - 1/125 . . {[on flexible surfaces](#)}
 - 1/14 . . to form thin sheets which are removed by scraping or wedging, e.g. in the form of flakes
 - 1/142 . . . from the outer walls of cooled bodies
 - 1/145 . . . from the inner walls of cooled bodies
 - 1/147 by using augers

WARNING

Group [F25C 1/147](#) is impacted by reclassification into group [F25C 5/142](#).

Groups [F25C 1/147](#) and [F25C 5/142](#) should be considered in order to perform a complete search.

- 1/16 . by partially evaporating water in a vacuum
- 1/18 . of a particular transparency or translucency, e.g. by injecting air
- 1/20 . . by agitation
- 1/22 . Construction of moulds; Filling devices for moulds
- 1/24 . . for refrigerators, e.g. freezing trays
- 1/243 . . . Moulds made of plastics e.g. silicone
- 1/246 . . . Moulds with separate grid structure
- 1/25 . . Filling devices for moulds

3/00 Processes or apparatus specially adapted for producing ice or snow for winter sports or similar recreational purposes, e.g. for sporting installations; Producing artificial snow

- 3/02 . for ice rinks
- 3/04 . for sledging or ski trails; Producing artificial snow

5/00 Working or handling ice ([F25C 3/00](#) takes precedence)

- 5/02 . Apparatus for disintegrating, removing or harvesting ice
- 5/04 . . without the use of saws
- 5/043 . . . {[Tools, e.g. ice picks, ice crushers, ice shavers](#)}
- 5/046 . . . {[Ice-crusher machines](#)}
- 5/06 . . . by deforming bodies with which the ice is in contact, e.g. using inflatable members
- 5/08 . . . by heating bodies in contact with the ice
- 5/10 using hot refrigerant; using fluid heated by refrigerant
- 5/12 . . . Ice-shaving machines
- 5/14 . Apparatus for shaping or finishing ice pieces, e.g. ice presses

WARNING

Group [F25C 5/14](#) is impacted by reclassification into group [F25C 5/142](#).

Groups [F25C 5/14](#) and [F25C 5/142](#) should be considered in order to perform a complete search.

- 5/142 . . {[extrusion of ice crystals](#)}

WARNING

Group [F25C 5/142](#) is incomplete pending reclassification of documents from groups [F25C 1/147](#) and [F25C 5/14](#).

Groups [F25C 1/147](#), [F25C 5/14](#) and [F25C 5/142](#) should be considered in order to perform a complete search.

- 5/18 . Storing ice
- 5/182 . . Ice bins therefor
- 5/185 . . . with freezing trays
- 5/187 . . . with ice level sensing means
- 5/20 . Distributing ice
- 5/22 . . {[particularly adapted for household refrigerators](#)}
- 5/24 . . {[for storing bins \(ice bins \[F25C 5/182\]\(#\)\)](#)}

2300/00 Special arrangements or features for producing, working or handling ice

2301/00 Special arrangements or features for producing ice

2301/002 . Producing ice slurries

2303/00 Special arrangements or features for producing ice or snow for winter sports or similar recreational purposes, e.g. for sporting installations; Special arrangements or features for producing 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 handling ice

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

2305/0221 . . rotating ice mould

2305/024 . Rotating rake

2400/00 Auxiliary features or devices for producing, working or handling 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