

**CPC****COOPERATIVE PATENT CLASSIFICATION****C13B**

**PRODUCTION OF SUCROSE; APPARATUS SPECIALLY ADAPTED THEREFOR** (chemically synthesised sugars or sugar derivatives [C07H](#) ; fermentation or enzyme-using processes for preparing compounds containing saccharide radicals [C12P 19/00](#))

**NOTE**

In this subclass, the following terms or expressions are used with the meanings indicated :

“sugar” is used in its non-scientific meaning and refers to sucrose, also called “table sugar” or saccharose”, a white crystalline disaccharide;

“sugar juices” are solutions of sugar, essentially comprising sucrose, which are derived from different plants, e.g. beet, cane or maple;

“syrops” are highly concentrated sugar juices.

**Guidance heading:**

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|-----------------------|--|
| <b>C13B 5/00</b>      | <b>Reducing the size of material from which sugar is to be extracted</b> (for extraction of starch <a href="#">C08B 30/02</a> )                                |
| C13B 5/02             | . Cutting sugar cane   |
| C13B 5/04             | . Shredding sugar cane   |
| C13B 5/06             | . Slicing sugar beet   |
| C13B 5/08             | . Knives; Adjustment or maintenance thereof  |
| <br><b>C13B 10/00</b> | <br><b>Production of sugar juices</b> (tapping of tree-juices <a href="#">A01G 23/10</a> ; tapping-spouts, receptacles for juices <a href="#">A01G 23/14</a> ) |
| C13B 10/003           | . { using chemicals other than extracting agents }   |
| C13B 10/006           | . { Conservation of sugar juices }   |
| C13B 10/02            | . Expressing juice from sugar cane or similar material, e.g. sorghum saccharatum   |
| C13B 10/025           | .. { Treatment of sugar cane before extraction ( <a href="#">C13B 5/00</a> takes precedence) }   |
| C13B 10/04            | .. combined with imbibition  |
| C13B 10/06            | .. Sugar-cane crushers   |
| C13B 10/08            | . Extraction of sugar from sugar beet with water   |
| C13B 10/083           | .. { Treatment of sugar beet before extraction ( <a href="#">C13B 5/00</a> takes precedence) }   |
| C13B 10/086           | .. { Processes or apparatus with discontinuous loading }   |

- C13B 10/10 . . Continuous processes
- C13B 10/102 . . . { having rotatable means for agitation or transportation }
- C13B 10/105 . . . . { Rotating apparatus }
- C13B 10/107 . . . { with transportation in the form of thin layers, e.g. by endless chains }
- C13B 10/12 . . Details of extraction apparatus, e.g. arrangements of pipes or valves
  
- C13B 10/14 . using extracting agents other than water, e.g. alcohol or salt solutions
  
- C13B 15/00** **Expressing water from material from which sugar has been extracted (from starch-extracted material [C08B 30/10](#))**
  
- C13B 15/02 . between perforated moving belts
  
- C13B 20/00** **Purification of sugar juices**
  
- NOTE**
- When classifying in this group, classification is also made in group [B01D 15/08](#) insofar as subject matter of general interest relating to chromatography is concerned
  
- C13B 20/002 . { using micro-organisms or enzymes }
- C13B 20/005 . { using chemicals not provided for in groups [C13B 20/02](#) to [C13B 20/14](#) }
- C13B 20/007 . . { Saturation with gases or fumes, e.g. carbon dioxide }
  
- C13B 20/02 . using alkaline earth metal compounds
- C13B 20/04 . . followed by saturation
- C13B 20/06 . . . with carbon dioxide or sulfur dioxide
  
- C13B 20/08 . by oxidation or reduction
- C13B 20/10 . . using sulfur dioxide or sulfites
  
- C13B 20/12 . using adsorption agents, e.g. active carbon
- C13B 20/123 . . { Inorganic agents, e.g. active carbon }
- C13B 20/126 . . { Organic agents, e.g. polyelectrolytes }
  
- C13B 20/14 . using ion-exchange materials
- C13B 20/142 . . { Mixed bed ([C13B 20/148](#) takes precedence) }
- C13B 20/144 . . { using only cationic ion-exchange material ([C13B 20/148](#) takes precedence) }
- C13B 20/146 . . { using only anionic ion-exchange material ([C13B 20/148](#) takes precedence) }
- C13B 20/148 . . { for fractionating, adsorption or ion exclusion processes combined with elution or desorption of a sugar fraction }
  
- C13B 20/16 . by physical means, e.g. osmosis or filtration
- C13B 20/165 . . { using membranes, e.g. osmosis, ultrafiltration ([electrodialysis C13B 20/18](#)) }
  
- C13B 20/18 . by electrical means

- C13B 25/00**      **Evaporators or boiling pans specially adapted for sugar juices; Evaporating or boiling sugar juices**
- C13B 25/001      . { with heating tubes or plates }
- C13B 25/003      . { with heating plates }
- C13B 25/005      . { with heating coils }
- C13B 25/006      . { rotating apparatus }
- C13B 25/008      . { with direct contact between heating medium and sugar solution }
- C13B 25/02      . Details, e.g. for preventing foaming or for catching juice
- C13B 25/04      . . Heating equipment
- C13B 25/06      . combined with measuring instruments for effecting control of the process
- C13B 30/00**      **Crystallisation; Crystallising apparatus; Separating crystals from mother liquors; { Evaporating or boiling sugar juice }**
- C13B 30/002      . { Evaporating or boiling sugar juice }
- C13B 30/005      . . { using chemicals }
- C13B 30/007      . . { Multiple effect evaporation }
- C13B 30/02      . Crystallisation; Crystallising apparatus
- C13B 30/021      . . { using chemicals }
- C13B 30/022      . . { Continuous processes, apparatus therefor ([C13B 30/028](#) takes precedence) }
- C13B 30/023      . . . { having rotatable means for agitation or transportation }
- C13B 30/025      . . . { combined with measuring instruments for effecting control of the process }
- C13B 30/026      . . { Discontinuous processes or apparatus therefor ([C13B 30/028](#) takes precedence) }
- C13B 30/027      . . . { combined with measuring instruments for effecting control of the process }
- C13B 30/028      . . { obtaining sugar crystals by drying sugar syrup or sugar juice, e.g. spray-crystallisation }
- C13B 30/04      . Separating crystals from mother liquor
- C13B 30/06      . . by centrifugal force
- C13B 30/08      . . Washing residual mother liquor from crystals
- C13B 30/10      . . . in centrifuges
- C13B 30/12      . . Recycling mother liquor or wash liquors
- C13B 30/14      . . Dissolving or refining raw sugar
- C13B 35/00**      **Extraction of sucrose from molasses**
- C13B 35/005      . { using micro-organisms or enzymes }

- C13B 35/02 . by chemical means
- C13B 35/04 . . by precipitation as alkaline earth metal saccharates
- C13B 35/06 . . using ion exchange
- C13B 35/08 . by physical means, e.g. osmosis

**C13B 40/00      Drying sugar**

- C13B 40/002 . { Drying sugar or syrup in bulk }
- C13B 40/005 . . { combined with agglomeration }
- C13B 40/007 . { Drying sugar in compacted form, e.g. cubes }

**C13B 45/00      Cutting machines specially adapted for sugar**

- C13B 45/02 . in combination with sorting and packing machines

**C13B 50/00      Sugar products, e.g. powdered, lump or liquid sugar; Working-up of sugar**  
 ([C13B 40/00](#), [C13B 45/00](#) take precedence; confectionery [A23G 3/00](#))

- C13B 50/002 . { Addition of chemicals or other foodstuffs }
- C13B 50/004 . { Agglomerated sugar products; Agglomeration }
- C13B 50/006 . { Molasses; Treatment of molasses ([extraction of sucrose C13B 35/00](#)) }
- C13B 50/008 . . { Drying }
- C13B 50/02 . formed by moulding sugar

**C13B 99/00      Subject matter not provided for in other groups of this subclass**