SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B03 SEPARATION OF SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS; MAGNETIC OR ELECTROSTATIC SEPARATION OF SOLID MATERIALS FROM SOLID MATERIALS OR FLUIDS; SEPARATION BY HIGH-VOLTAGE ELECTRIC FIELDS

B03B **SEPARATING SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS** (removing fluids from solids B01D; magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high voltage electric fields B03C; flotation, differential sedimentation B03D; separating by dry methods B07; screening or sifting B07B; by picking B07C; separating peculiar to particular materials and provided for in other single classes, see the relevant classes)

Subclass index

PRETREATMENT.....1/00
WASHING, WET SEPARATING, SEPARATING BY PNEUMATIC JIGS; FEEDING AND DISCHARGING PRODUCTS TREATED THEREBY.....4/00, 5/00, 11/00
COMBINATIONS OF PROCESSES OR APPARATUS.....7/00
ARRANGEMENTS OF PLANT.....9/00
CONTROL BY PHYSICAL EFFECTS.....13/00

1/00 **Conditioning for facilitating separation by altering physical properties of the matter to be treated** (pretreatment of ores in general C22B)
1/02 • Preparatory heating
1/04 • by additives
1/06 • by varying ambient atmospheric pressure

4/00 **Separating by pneumatic tables or by pneumatic jigs** (sink-float separation using dry heavy media B03B 5/46) **[2]**
4/02 • using swinging or shaking tables **[6]**
4/04 • using rotary tables or tables formed by travelling belts (separating solids from solids using gas currents and revolving drums B07B 4/06) **[6]**
4/06 • using fixed and inclined tables **[6]**

5/00 **Washing granular, powdered or lumpy materials; Wet separating** (separating by pneumatic tables or by pneumatic jigs B03B 4/00) **[2]**
5/02 • using shaken, pulsated or stirred beds as the principal means of separation (B03B 5/28, B03B 5/48 take precedence) **[2]**
5/04 • • on shaking tables (on vanners B03B 5/08) **[2]**
5/06 • • • Constructional details of shaking tables, e.g. riffling **[2]**
5/08 • • on vanners **[2]**
5/10 • • on jigs **[2]**
5/12 • • • using pulses generated mechanically in fluid **[2]**
5/14 • • • • Plunger jigs **[2]**
5/16 • • • • Diaphragm jigs **[2]**
5/18 • • • • Moving-sieve jigs **[2]**
5/20 • • • using pulses generated by air injection **[2]**
5/22 • • • using pulses generated by liquid injection **[2]**
5/24 • • • Constructional details of jigs, e.g. pulse control devices **[2]**
5/26 • • in sluices **[2]**
5/28 • by sink-float separation **[2]**
5/30 • • using heavy liquids or suspensions **[2]**
5/32 • • • using centrifugal force (centrifuges B04B; cyclones B04C) **[2]**
5/34 • • • • Applications of hydrocyclones **[2]**
5/36 • • • Devices therefor, other than using centrifugal force (jigs B03B 5/10) **[2]**
5/38 • • • • of conical receptacle type **[2]**
5/40 • • • • of trough type **[2]**
5/42 • • • • of drum or lifting wheel type **[2]**
5/44 • • • Application of particular media therefor **[2]**
5/46 • • using dry heavy media; Devices therefor **[2]**
5/48 • by mechanical classifiers (sink-float separation aspects B03B 5/28) **[2]**
5/50 • • Rake classifiers **[2]**
5/52 • • Spiral classifiers **[2]**
5/54 • • Drag classifiers **[2]**
5/56 • • Drum classifiers **[2]**
5/58 • • Bowl classifiers **[2]**
5/60 • by non-mechanical classifiers, e.g. slime tanks (using shaken, pulsated or stirred beds as the principal means of separation B03B 5/02; hydraulic classifiers B03B 5/62; water impulse classifiers B03B 5/68) **[2]**
5/62 • by hydraulic classifiers, e.g. of launder, tank, spiral or helical chute concentrator type **[2]**
5/64 • • of the free settling type **[2]**
5/66 • • of the hindered settling type **[2]**
5/68 • by water impulse (shaking tables B03B 5/04; jigs B03B 5/10; hydraulic classifiers B03B 5/62) **[2]**
5/70 • • on tables or strakes **[2]**
5/72 • • • which are movable **[2]**
5/74 • • • • Revolving tables **[2]**

7/00 **Combinations of wet processes or apparatus with other processes or apparatus, e.g. for dressing ores or garbage**

9/00 **General arrangement of separating plant, e.g. flow sheets**

9/02 • specially adapted for oil-sand, oil-chalk, oil-shales, ozokerite, bitumen, or the like

9/04 • specially adapted for furnace residues, smeltings, or foundry slags

9/06 • specially adapted for refuse

11/00 **Feed or discharge devices integral with washing or wet-separating equipment** (filling or emptying devices per se B65G 65/30)

13/00 **Control arrangements specially adapted for wet-separating apparatus or for dressing plant, using physical effects** (detecting, measuring, or analysing devices G01)

13/02 • using optical effects

13/04 • using electrical or electromagnetic effects

13/06 • using absorption or reflection of radioactive emanation