

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

SEPARATING; MIXING

B07 SEPARATING SOLIDS FROM SOLIDS; SORTING (separation in general [B01D](#); wet separating processes, sorting by processes using fluent material in the same way as liquid [B03](#); using liquids [B03B](#), [B03D](#); sorting by magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high voltage electric fields [B03C](#); centrifuges or vortex apparatus for carrying out physical processes [B04](#); sorting peculiar to particular materials or articles and provided for in other classes, [see the relevant classes](#))

B07C POSTAL SORTING; SORTING INDIVIDUAL ARTICLES, OR BULK MATERIAL FIT TO BE SORTED PIECE-MEAL, e.g. BY PICKING (specially adapted for a specific purpose covered by another class, [see the relevant place](#), e.g. [A43D 33/06](#), [B23Q 7/12](#))

NOTE

This subclass [covers](#) sorting of materials or articles by hand or by devices actuated, manually or automatically, as a result of inspection or of detection or measurement of some feature of the material or articles

Postal sorting; Similar sorting of documents, e.g. cheques (tube mail systems [B65G 51/04](#); sorting information records, e.g. punched cards, [G06F 7/10](#))

1/00 Measures preceding sorting according to destination

- 1/02 . Forming articles into a stream; Arranging articles in a stream, e.g. spacing, orientating {(transport of sheets [B65H](#))}
- 1/025 . . {Devices for the temporary stacking of objects provided with a stacking and destacking device (interstack device)}
- 1/04 . . Forming a stream from a bulk; Controlling the stream, e.g. spacing the articles
- 1/06 . . Orientating; Aligning {Aligning to one edge}
- 1/10 . Sorting according to size or flexibility
- 1/12 . . Separating letters from parcels
- 1/14 . . Sorting according to length or width
- 1/16 . . Sorting according to thickness or stiffness
- 1/18 . Orientating articles other than in a stream {, e.g. turning, deflecting or changing direction}
- 1/20 . Sorting according to orientation, e.g. according to position of stamp

3/00 Sorting according to destination {(collating the pages of a book [B42C 1/00](#))}

- 3/001 . {Code converters for keyboards in coding stations (code converters in reading devices [B07C 3/10](#))}
- 3/003 . {Destination control; Electro-mechanical or electro-magnetic delay memories}
- 3/005 . . {the transport holders of objects being provided with means for storing the destination signals (sorting devices for transport holders [B07C 3/082](#))}
- 3/006 . . {Electric or electronic control circuits, e.g. delay lines (delay devices [per se H03H 7/30](#), [H03H 11/26](#))}

- 3/008 . {Means for collecting objects, e.g. containers for sorted mail items (pile receivers in general [B65H 31/00](#))}
- 3/02 . Apparatus characterised by the means used for distribution
- 3/04 . . Drum-type sorting machines {or having circularly arranged sorting compartments}
- 3/06 . . Linear sorting machines in which articles are removed from a stream at selected points
- 3/065 . . . {construction of switches therefor}
- 3/08 . . using arrangements of conveyors {(transport of sheets [B65H](#); transport in general [B65G](#))}
- 3/082 . . . {In which the objects are carried by transport holders and the transport holders form part of the conveyor belts (conveyors with carriers [B65G 47/00](#))}
- 3/085 {making use of transport holders in the form of clamps or grips (cable post [B65G](#))}
- 3/087 {the objects being taken up in transport files or holders which are not part of the conveyor belts (cable post [B65G](#))}
- 3/10 . Apparatus characterised by the means used for detection of the destination (methods or arrangements for reading and recognising printed or written characters or geometric figures [G06K 9/00](#))
- 3/12 . . using electric or electronic detecting means ([B07C 3/14](#) takes precedence)
- 3/14 . . using light-responsive detecting means {(for information carriers [G06K 7/14](#))}
- 3/16 . . using magnetic detecting means {(for information carriers [G06K 7/08](#))}
- 3/18 . Devices or arrangements for indicating destination, e.g. by code marks {(applying data to information carriers [G06K 1/12](#))}

- 3/20 . . . Arrangements for facilitating the visual reading of addresses, e.g. display arrangements [{coding stations}](#)
- 5/00** **Sorting according to a characteristic or feature of the articles or material being sorted, e.g. by control effected by devices which detect or measure such characteristic or feature; Sorting by manually actuated devices, e.g. switches (sorting by hand only [B07C 7/00](#); separating solids from solids by sieving, screening, or sifting or by using gas currents or other separating by dry methods applicable to bulk material [B07B](#))**
- 5/02 . . Measures preceding sorting, e.g. arranging articles in a stream orientating [{\(sorting and transport of caps \[B67B 3/06\]\(#\)\)}](#)
- 5/04 . . Sorting according to size [{\(sorting devices as a component of the automatic supply and removal of workpieces \[B23Q 7/12\]\(#\)\)}](#)
- 5/06 . . . measured mechanically [{\(sorting of cartridges \[F42B 35/02\]\(#\)\)}](#)
- 5/065 . . . {with multiple measuring appliances adjusted according to different standards, for example length or thickness, which detect the shape of an object so that if it conforms to the standard set by the measuring appliance, it is removed from the conveyor, e.g. by means of a number of differently calibrated openings}
- 5/07 . . . by calipering using relatively moving article-engaging means, e.g. clamps
- 5/08 . . . measured electrically or electronically [\(B07C 5/10 takes precedence; sorting according to electric or electromagnetic properties \[B07C 5/344\]\(#\); measuring size in general using electric or magnetic means \[G01B 7/00\]\(#\); testing coins \[G07D 5/00\]\(#\), \[G07F 3/02\]\(#\)\)}](#)
- 5/083 . . . {Mechanically moved sensing devices, the movement of which influences the electric contact members}
- 5/086 . . . {Magnetic sensing devices}
- 5/10 . . . measured by light-responsive means [{\(sorting according to colour \[B07C 5/342\]\(#\)\)}](#)
- 5/12 . . . characterised by the application to particular articles, not otherwise provided for [{\(B07C 9/00 takes precedence; sorting eggs \[A01K 43/00\]\(#\); measuring and sorting devices for shoe components \[A43D 119/00\]\(#\); sorting cartridges \[F42B 35/02\]\(#\)\)}](#)
- 5/122 . . . {for bottles, ampoules, jars and other glassware [\(sorting and transport of caps \[B67B 3/06\]\(#\)\)}](#)
- 5/124 {by means of mechanical measuring devices which may also control electrical contacts}
- 5/126 {by means of photo-electric sensors, e.g. according to colour [\(sorting according to optical properties \[B07C 5/342\]\(#\); material testing with the aid of optical means \[G01N 21/00\]\(#\)\)}](#)
- 5/128 {by means of electric, for example electronic measurement}
- 5/14 . . . Sorting timber or logs {, e.g. tree trunks, beams, planks or the like}
- 5/16 . . Sorting according to weight [\(sorting eggs \[A01K 43/00\]\(#\); weighing apparatus per se \[G01G\]\(#\)\)](#)
- 5/165 . . . {of letters}
- 5/18 . . . using a single stationary weighing mechanism
- 5/20 . . . for separating articles of less than a predetermined weight from those of more than that weight
- 5/22 . . . using a plurality of stationary weighing mechanisms
- 5/24 . . . using moving weighing mechanisms, e.g. moving along a circular path
- 5/26 . . . wherein the counterbalancing effect of the weighing mechanisms is varied during such movement
- 5/28 . . . using electrical control means
- 5/30 . . . with associated counting means
- 5/32 . . . with associated check-weighing means [{\(check-weighing per se \[G01G 15/00\]\(#\)\)}](#)
- 5/34 . . Sorting according to other particular properties [{\(material testing per se \[G01N\]\(#\); quality control \[G07C 3/14\]\(#\)\)}](#)
- 5/3404 . . . {according to properties of containers or receptacles, e.g. rigidity, leaks, fill-level [\(control devices for cigarette or cigar packaging \[B65B 19/28\]\(#\); investigation of fluid-tightness of structures \[G01M 3/00\]\(#\)\)}](#)
- 5/3408 {for bottles, jars or other glassware [\(according to size \[B07C 5/122\]\(#\)\)}](#)
- 5/3412 . . . {according to a code applied to the object which indicates a property of the object, e.g. quality class, contents or incorrect indication [\(sorting according to size measured by light-responsive means \[B07C 5/10\]\(#\); sorting according to optical properties \[B07C 5/342\]\(#\); for packages \[B65D 79/02\]\(#\); for information carriers \[G06K 7/00\]\(#\)\)}](#)
- 5/3416 . . . {according to radiation transmissivity, e.g. for light, x-rays, particle radiation [\(detecting hidden objects \[G01V\]\(#\)\)}](#)
- 5/342 . . . according to optical properties, e.g. colour [{\(according to radiation transmittivity \[B07C 5/3416\]\(#\)\)}](#)
- 5/3422 {using video scanning devices, e.g. TV-cameras}
- 5/3425 {of granular material, e.g. ore particles, grain [\(investigation moving fluids or granular solids using optical means \[G01N 21/85\]\(#\)\)}](#)
- 5/3427 {by changing or intensifying the optical properties prior to scanning, e.g. by inducing fluorescence under UV or x-radiation, subjecting the material to a chemical reaction}
- 5/344 . . . according to electric or electromagnetic properties [{\(sorting according to size measured electrically or electronically \[B07C 5/08\]\(#\); material testing by magnetic means \[G01N 24/00\]\(#\), \[G01N 27/00\]\(#\), by electrical means \[G01N 27/00\]\(#\); electrical measuring devices in general \[G01R\]\(#\); coin testing \[G07D 5/00\]\(#\), \[G07F 3/02\]\(#\)\)}](#)
- 5/346 . . . according to radioactive properties [{\(material testing \[G01N 23/00\]\(#\); radiation measurement \[G01T\]\(#\)\)}](#)
- 5/36 . . Sorting apparatus characterised by the means used for distribution [{\(sorting according to destination \[B07C 3/003\]\(#\), \[B07C 3/02\]\(#\)\)}](#)
- 5/361 . . . {Processing or control devices therefor, e.g. escort memory}

- 5/362 . . . {Separating or distributor mechanisms (switches for postal sorting [B07C 3/065](#); particular discharging devices for [B65G 47/74](#))}
- 5/363 . . {by means of air}
- 5/365 . . . {using a single separation means}
- 5/366 {during free fall of the articles}
- 5/367 . . . {using a plurality of separation means}
- 5/368 {actuated independently}
- 5/38 . . Collecting or arranging articles in groups
- 7/00** **Sorting by hand only {e.g. of mail}**
- 7/005 . {Computer assisted manual sorting, e.g. for mail}
- 7/02 . Compartmented furniture, e.g. pigeon-holes ([B07C 7/005](#) takes precedence; furniture [per se A47B](#)); storage racks [B65G](#))
- 7/04 . Apparatus or accessories for hand picking
- 9/00** **{Sorting, with or without orientating, not otherwise provided for, e.g. sorting of table equipment (washing and rinsing machines for tableware [A47L 15/00](#), [A47L 15/02](#); machines for polishing table equipment [A47L 21/02](#))}**

2201/00 **Measures preceding sorting according to destination**

- 2201/003 . Cancellation, e.g. stamps by stamping, printing
- 2201/006 . Hazardous Substances, e.g. checking for contamination, explosives, anthrax

2301/00 **Sorting according to destination**

- 2301/0008 . Electronic Devices, e.g. keyboard, displays
- 2301/0016 . RFID-tags
- 2301/0025 . Recipient identification providing a unique ID for a mail recipient
- 2301/0033 . Returning of unsold articles, e.g. magazines
- 2301/0041 . Sequencing items to a carrier walk sequence or delivery order
- 2301/005 . Redirection or forwarding of mail pieces
- 2301/0058 . Verification for the correct postage amount
- 2301/0066 . Check for destination address in a database or list
- 2301/0075 . Packaging or wrapping of sorted mail pieces
- 2301/0083 . Merging of mail pieces of different categories, e.g. letters with flats
- 2301/0091 . Creating a signature of fingerprint based on graphic appearance of the mail piece, e.g. to avoid barcode printing

2501/00 **Sorting according to a characteristic or feature of the articles or material to be sorted**

- 2501/0009 . Sorting of fasteners, e.g. screws, nuts, bolts
- 2501/0018 . Sorting the articles during free fall
- 2501/0027 . Sorting the articles according to a sound
- 2501/0036 . Sorting out metallic particles
- 2501/0045 . Return vending of articles, e.g. bottles
- 2501/0054 . Sorting of waste or refuse
- 2501/0063 . Using robots
- 2501/0072 . Sorting of glass
- 2501/0081 . Sorting of food items
- 2501/009 . Sorting of fruit