

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### SEPARATING; MIXING

## B02 CRUSHING, PULVERISING, OR DISINTEGRATING; PREPARATORY TREATMENT OF GRAIN FOR MILLING

**B02C CRUSHING, PULVERISING, OR DISINTEGRATING IN GENERAL; MILLING GRAIN** ({household tools and machines for pulverising foodstuffs, e.g. coffee and spice mills [A47J 42/00](#); pharmaceutical mortars [A61J 3/02](#); mechanical processing of refuse and garbage [B03B 9/06](#); dressing mould materials by grinding [B22C 5/04](#)}; obtaining metallic powder by crushing, grinding or milling [B22F 9/04](#); {recovery of plastics by disintegrating [B29B 17/00](#); crushing raw materials in starch making [C08B 30/02](#); beaters for papermaking [D21D 1/02](#); crushing devices specially for transport in mines [E21F 13/002](#); slag crushing devices [F23J 1/00](#); fuel milling devices in combustion apparatus [F23K 1/00](#); household devices for crushing coal [F24B 15/02](#); ice disintegrating devices [F25C 5/02](#)})

### 1/00 Crushing or disintegrating by reciprocating members

- 1/005 . {hydraulically or pneumatically operated}
- 1/02 . Jaw crushers or pulverisers
- 1/025 . . {Jaw clearance or overload control}
- 1/04 . . with single-acting jaws
- 1/043 . . . {with cooperating single acting jaws}
- 1/046 . . . {of the plural stage type}
- 1/06 . . with double-acting jaws
- 1/08 . . with jaws coacting with rotating roller
- 1/10 . . Shape or construction of jaws
- 1/12 . Mills with non-rotating spiked members
- 1/14 . Stamping mills

### 2/00 Crushing or disintegrating by gyratory or cone crushers {(with non-coaxial discs with intersecting axes [B02C 7/005](#))}

- 2002/002 . {the bowl being a driven element for providing a crushing effect}
- 2/005 . {Lining}
- 2/007 . {Feeding devices}
- 2/02 . eccentrically moved
- 2/04 . . with vertical axis
- 2/042 . . . {Moved by an eccentric weight}
- 2/045 . . . {and with bowl adjusting or controlling mechanisms ([B02C 2/042](#), [B02C 2/06](#) take precedence)}
- 2/047 . . . {and with head adjusting or controlling mechanisms ([B02C 2/042](#), [B02C 2/06](#) take precedence)}
- 2/06 . . . and with top bearing {([B02C 2/042](#) takes precedence)}
- 2/08 . . with horizontal axis
- 2/10 . concentrically moved; Bell crushers

### 4/00 Crushing or disintegrating by roller mills (with milling members in the form of rollers or balls co-operating with rings or discs [B02C 15/00](#); roller mills or roll refiners exclusively for chocolate [A23G 1/10](#), [A23G 1/12](#))

- 4/02 . with two or more rollers
- 4/04 . . specially adapted for milling paste-like material, e.g. paint, chocolate, colloids
- 4/06 . . specially adapted for milling grain
- 4/08 . . with co-operating corrugated or toothed crushing-rollers
- 4/10 . with a roller co-operating with a stationary member
- 4/12 . . in the form of a plate
- 4/14 . . . specially adapted for milling paste-like material, e.g. paint, chocolate, colloids
- 4/16 . . . specially adapted for milling grain
- 4/18 . . in the form of a bar
- 4/20 . . . wherein the roller is corrugated or toothed
- 4/22 . . . specially adapted for milling paste-like material, e.g. paint, chocolate, colloids
- 4/24 . . . specially adapted for milling grain
- 4/26 . . in the form of a grid or grating
- 4/28 . Details
- 4/283 . . {Lateral sealing shields}
- 4/286 . . {Feeding devices}
- 4/30 . . Shape or construction of rollers
- 4/305 . . . {Wear resistant rollers}
- 4/32 . . Adjusting, applying pressure to, or controlling the distance between, milling members
- 4/34 . . . in mills wherein a roller co-operates with a stationary member
- 4/36 . . . in mills specially adapted for paste-like materials
- 4/38 . . . in grain mills
- 4/40 . . Detachers, e.g. scrapers
- 4/42 . . Driving mechanisms; Roller speed control
- 4/423 . . . {with vibrating or oscillating mechanisms}

- 4/426 . . . {Torque counterbalancing mechanisms}
- 4/44 . . Cooling or heating rollers or bars
- 7/00 Crushing or disintegrating by disc mills (apparatus specially adapted for manufacture or treatment of cocoa or cocoa products exclusively [A23G 1/04](#))**
- 7/005 . {Crushers with non-coaxial toothed discs with intersecting axes}
- 7/02 . with coaxial discs
- 7/04 . . with concentric circles of intermeshing teeth
- 7/06 . . with horizontal axis ([B02C 7/04](#) takes precedence)
- 7/08 . . with vertical axis ([B02C 7/04](#) takes precedence)
- 7/10 . with eccentric discs
- 7/11 . Details
- 7/12 . . Shape or construction of discs
- 7/13 . . . for grain mills
- 7/14 . . Adjusting, applying pressure to, or controlling distance between, discs
- 7/16 . . Driving mechanisms
- 7/17 . . Cooling or heating of discs
- 7/175 . Disc mills specially adapted for paste-like material, e.g. paint, chocolate, colloids
- 7/18 . Disc mills specially adapted for grain
- 7/182 . . {with horizontal axis}
- 7/184 . . {with vertical axis}
- 7/186 . . {Adjusting, applying pressure to, or controlling distance between, discs}
- 7/188 . . {Driving mechanisms}
- 9/00 Other milling methods or mills specially adapted for grain**
- 9/02 . Cutting or splitting grain
- 9/04 . Systems or sequences of operations; Plant
- 11/00 Other auxiliary devices or accessories specially adapted for grain mills**
- 11/02 . Breaking up amassed particles, e.g. flakes
- 11/04 . Feeding devices
- 11/06 . Arrangements for preventing fire or explosion (methods for preventing or extinguishing fires, devices therefor [A62C](#))
- 11/08 . Cooling, heating, ventilating, conditioning with respect to temperature or water content (conditioning grain before milling [B02B 1/08](#); air-conditioning or ventilating in general [F24F](#))
- 13/00 Disintegrating by mills having rotary beater elements{; Hammer mills}**
- 13/02 . with horizontal rotor shaft (with axial flow [B02C 13/10](#))
- 13/04 . . with beaters hinged to the rotor; Hammer mills
- 13/06 . . with beaters rigidly connected to the rotor
- 13/08 . . . and acting as a fan
- 13/09 . . . and throwing the material against an anvil or impact plate {(with vertical axis [B02C 13/1807](#))}
- 13/095 . . . . {with an adjustable anvil or impact plate}
- 13/10 . with horizontal rotor shaft and axial flow
- 13/12 . . with vortex chamber
- 13/13 . with horizontal rotor shaft and combined with sifting devices, e.g. for making powdered fuel
- 13/14 . with vertical rotor shaft, e.g. combined with sifting devices
- 2013/145 . . {with fast rotating vanes generating vortexes effecting material on material impact}
- 13/16 . . with beaters hinged to the rotor
- 13/18 . . with beaters rigidly connected to the rotor
- 13/1807 . . . {the material to be crushed being thrown against an anvil or impact plate (with horizontal axis [B02C 13/09](#); centrifugal acceleration of material through radially extending channels [B02C 19/0025](#); centrifugal acceleration of material by means of an open top rotor [B02C 19/0031](#))}
- 13/1814 . . . . {by means of beater or impeller elements fixed on top of a disc type rotor}
- 13/1821 . . . . . {the beater or impeller elements being rotatably fixed around their own axis}
- 13/1828 . . . . . {with dead bed protected beater or impeller elements}
- 13/1835 . . . . {by means of beater or impeller elements fixed in between an upper and lower rotor disc}
- 13/1842 . . . . . {with dead bed protected beater or impeller elements}
- 13/185 . . . . {Construction or shape of anvil or impact plate}
- 2013/1857 . . . . {rotating coaxially around the rotor shaft}
- 2013/1864 . . . . {rotatable around its own axis}
- 2013/1871 . . . . {vertically adjustable}
- 2013/1878 . . . . {radially adjustable}
- 2013/1885 . . . . {of dead bed type}
- 2013/1892 . . . . {cooled or heated}
- 13/20 . with two or more co-operating rotors
- 13/205 . . {arranged concentrically}
- 13/22 . with intermeshing pins{; Pin Disk Mills}
- 13/24 . . arranged around a vertical axis
- 13/26 . Details
- 13/28 . . Shape or construction of beater elements
- 13/2804 . . . {the beater elements being rigidly connected to the rotor}
- 2013/2808 . . . {the beater elements are attached to disks mounted on a shaft}
- 2013/2812 . . . {the beater elements are attached to a hollow cylindrical rotor}
- 2013/2816 . . . {of chain, rope or cable type}
- 13/282 . . Shape or inner surface of mill-housings
- 2013/2825 . . . {with fastening means for fixing lining members to the inner surface of mill-housings}
- 13/284 . . . Built-in screens
- 13/286 . . Feeding or discharge
- 2013/28609 . . . {Discharge means}
- 2013/28618 . . . {Feeding means}
- 2013/28627 . . . . {of ram or pusher type}
- 2013/28636 . . . . {of conveyor belt type}
- 2013/28645 . . . . {of conveyor belt and cooperating roller type}
- 2013/28654 . . . . {of screw type}
- 2013/28663 . . . . {using rollers}
- 2013/28672 . . . . {Feed chute arrangements}
- 2013/28681 . . . . {Feed distributor plate for vertical mill}
- 2013/2869 . . . {Arrangements of feed and discharge means in relation to each other}
- 13/288 . . Ventilating, or influencing air circulation
- 2013/29 . . {devices for manipulating beater elements}
- 13/30 . . Driving mechanisms

13/31	. . Safety devices or measures	17/14	. Mills in which the charge to be ground is turned over by movements of the container other than by rotating, e.g. by swinging, vibrating, tilting <a href="#">{(mills provided with vibrators in general B02C 19/16)}</a>
<b>15/00</b>	<b>Disintegrating by milling members in the form of rollers or balls co-operating with rings or discs <a href="#">{(high-speed drum mills B02C 19/11)}</a></b>	17/16	. Mills in which a fixed container houses stirring means tumbling the charge
15/001	. <a href="#">{Air flow directing means positioned on the periphery of the horizontally rotating milling surface}</a>	17/161	. . <a href="#">{Arrangements for separating milling media and ground material}</a>
2015/002	. <a href="#">{combined with a classifier}</a>	17/163	. . <a href="#">{Stirring means}</a>
15/003	. <a href="#">{Shape or construction of discs or rings}</a>	2017/165	. . <a href="#">{with stirring means comprising more than one agitator}</a>
15/004	. <a href="#">{Shape or construction of rollers or balls}</a>	17/166	. . <a href="#">{of the annular gap type}</a>
15/005	. . <a href="#">{Rollers or balls of composite construction}</a>	17/168	. . <a href="#">{with a basket media milling device arranged in or on the container, involving therein a circulatory flow of the material to be milled}</a>
15/006	. <a href="#">{Ring or disc drive gear arrangement}</a>	17/18	. Details
15/007	. <a href="#">{Mills with rollers pressed against a rotary horizontal disc <a href="#">(with pendularly mounted rollers B02C 15/04)</a>}</a>	17/1805	. . <a href="#">{Monitoring devices for tumbling mills}</a>
2015/008	. <a href="#">{Roller drive arrangements}</a>	17/181	. . <a href="#">{Bearings specially adapted for tumbling mills}</a>
15/02	. Centrifugal pendulum-type mills	17/1815	. . <a href="#">{Cooling or heating devices}</a>
15/04	. Mills with pressed pendularly-mounted rollers, e.g. spring pressed	17/182	. . <a href="#">{Lids}</a>
15/045	. . <a href="#">{pressed against the interior of a ring rotating in a vertical plane}</a>	17/1825	. . <a href="#">{Lifting devices <a href="#">(lifting devices associated with the lining for containers B02C 17/22)</a>}</a>
15/06	. Mills with rollers forced against the interior of a rotary ring, e.g. under spring action <a href="#">(B02C 15/04 takes precedence)</a>	17/183	. . <a href="#">{Feeding or discharging devices}</a>
15/08	. Mills with balls or rollers centrifugally forced against the inner surface of a ring, the balls or rollers of which are driven by a centrally arranged member <a href="#">(B02C 15/02 takes precedence)</a>	17/1835	. . . <a href="#">{Discharging devices combined with sorting or separating of material <a href="#">(B02C 17/186 takes precedence)</a>}</a>
15/10	. Mills with balls or rollers centrifugally forced against the inner surface of a ring, the balls or rollers of which are driven by other means than a centrally-arranged member	17/184	. . . . <a href="#">{with separator arranged in discharge path of crushing zone}</a>
15/12	. Mills with at least two discs <a href="#">{or rings}</a> and interposed balls or rollers mounted like ball or roller bearings	17/1845	. . . . . <a href="#">{with return of oversize material to crushing zone}</a>
15/123	. . <a href="#">{with rings and interposed rollers}</a>	17/185	. . . . . <a href="#">{with more than one separator}</a>
2015/126	. . <a href="#">{of the plural stage type}</a>	17/1855	. . . . . <a href="#">{with separator defining termination of crushing zone, e.g. screen denying egress of oversize material}</a>
15/14	. Edge runners, e.g. Chile mills	17/186	. . . <a href="#">{Adding fluid, other than for crushing by fluid energy}</a>
2015/143	. . <a href="#">{each runner pivot carrying more than one runner}</a>	17/1865	. . . . <a href="#">{after crushing}</a>
2015/146	. . <a href="#">{Step-shaped runners}</a>	17/187	. . . . . <a href="#">{with recirculation of material to crushing zone}</a>
15/16	. with milling members essentially having different peripheral speeds and in the form of a hollow cylinder or cone and an internal roller or cone	17/1875	. . . . . <a href="#">{passing gas through crushing zone}</a>
<b>17/00</b>	<b>Disintegrating by tumbling mills, i.e. mills having a container charged with the material to be disintegrated with or without special disintegrating members such as pebbles or balls <a href="#">(high-speed drum mills B02C 19/11</a>; <a href="#">drums for polishing or grinding B24B</a>)</b>	17/188	. . . . . <a href="#">{characterised by point of gas entry or exit or by gas flow path}</a>
17/002	. <a href="#">{with rotary cutting or beating elements}</a>	17/1885	. . . . . <a href="#">{the applied gas acting to effect material separation <a href="#">(B02C 17/1895 takes precedence)</a>}</a>
17/005	. <a href="#">{the charge being turned over by magnetic forces}</a>	17/189	. . . . . <a href="#">{with return of oversize material to crushing zone <a href="#">(B02C 17/1895 takes precedence)</a>}</a>
17/007	. <a href="#">{specially adapted for disintegrating refuse}</a>	17/1895	. . . . . <a href="#">{gas being recirculated to crushing zone}</a>
17/02	. with perforated container	17/20	. . Disintegrating members
17/04	. with unperforated container	17/205	. . . <a href="#">{Adding disintegrating members to the tumbling mill}</a>
17/06	. . with several compartments	17/22	. . Lining for containers
2017/065	. . . <a href="#">{with several compartments in the form of multiwell blocks}</a>	17/225	. . . <a href="#">{using rubber or elastomeric material}</a>
17/07	. . . in radial arrangement	17/24	. . Driving mechanisms
17/08	. . with containers performing a planetary movement	<b>18/00</b>	<b>Disintegrating by knives or other cutting or tearing members which chop material into fragments <a href="#">{(tree stump comminutors A01G 23/067)}</a></b>
17/10	. with one or a few disintegrating members arranged in the container	18/007	. <a href="#">{specially adapted for disintegrating documents}</a>
		2018/0015	. . <a href="#">{for disintegrating CDs, DVDs and/or credit cards}</a>
		2018/0023	. . <a href="#">{Switching devices}</a>

2018/003	. . {Removing clips, pins or staples before disintegrating}	18/184	. . . . . {with peripherally arranged demountable cutting tips or elements}
2018/0038	. . {Motor drives}	18/186	. . . . . {Axially elongated knives}
2018/0046	. . {Shape or construction of frames, housings or casings}	2018/188	. . . . . {Stationary counter-knives; Mountings thereof}
2018/0053	. . {hand-operated}	18/20	. . . . . Sickle-shaped knives
2018/0061	. . {with compacting devices for the disintegrated material}	18/22	. . . . . Feed or discharge means
2018/0069	. . {with stripping devices}	2018/2208	. . . . . {for weblike material}
18/0076	. {with cutting or tearing members fixed on endless flexible members (without cutting or tearing members <a href="#">B02C 19/0006</a> )}	18/2216	. . . . . {Discharge means}
18/0084	. {specially adapted for disintegrating garbage, waste or sewage}	18/2225	. . . . . {Feed means}
18/0092	. . {for waste water or for garbage}	18/2233	. . . . . {of ram or pusher type}
18/02	. with reciprocating knives	18/2241	. . . . . {of conveyor belt type ( <a href="#">B02C 18/225</a> takes precedence)}
18/04	. . Details	18/225	. . . . . {of conveyor belt and cooperating roller type}
18/06	. with rotating knives	18/2258	. . . . . {of screw type}
18/062	. . {with rotor elements extending axially in close radial proximity of a concentrically arranged slotted or perforated ring}	18/2266	. . . . . {of revolving drum type}
18/065	. . {within rotatable bowls, e.g. meat cutters}	18/2275	. . . . . {using a rotating arm}
18/067	. . {Tub-grinders}	18/2283	. . . . . {using rollers ( <a href="#">B02C 18/225</a> takes precedence)}
18/08	. . within vertical containers {( <a href="#">B02C 18/062</a> , <a href="#">B02C 18/065</a> take precedence)}	18/2291	. . . . . {Feed chute arrangements}
18/083	. . . {with a disc rotor having generally radially extending slots or openings bordered with cutting knives}	18/24	. . . Drives
18/086	. . . {specially adapted for disintegrating plastics, e.g. cinematographic films (for plastic bottles <a href="#">B02C 19/0093</a> , disintegrating plastics <a href="#">B29B 17/00</a> )}	18/26	. with knives which both reciprocate and rotate
18/10	. . . with drive arranged above container {( <a href="#">B02C 18/083</a> takes precedence)}	18/28	. with spiked cylinders
18/12	. . . with drive arranged below container {( <a href="#">B02C 18/083</a> takes precedence)}	18/30	. Mincing machines with perforated discs and feeding worms
18/14	. . within horizontal containers {( <a href="#">B02C 18/062</a> , <a href="#">B02C 18/065</a> take precedence)}	18/301	. . {with horizontal axis}
18/141	. . . {with axial flow}	18/302	. . . {with a knife-perforated disc unit}
18/142	. . . {with two or more inter-engaging rotatable cutter assemblies}	18/304	. . . {with several axially aligned knife-perforated disc units}
18/143	. . . {with a disc rotor having generally radially extending slots or openings bordered with cutting knives}	18/305	. . {Details}
18/144	. . . {with axially elongated knives}	2018/307	. . . {Cooling arrangements in mincing machines}
18/145	. . . {with knives spaced axially and circumferentially on the periphery of a cylindrical rotor unit}	2018/308	. . {with separating devices for hard material, e.g. bone}
18/146	. . . {with a rotor comprising a plurality of axially contiguous disc-like segments each having at least one radially extending cutting element}	18/32	. . with sharpening devices
2018/147	. . . {of the plural stage type}	18/34	. . with means for cleaning the perforated discs
18/148	. . . {specially adapted for disintegrating plastics, e.g. cinematographic films (for plastic bottles <a href="#">B02C 19/0093</a> , disintegrating plastics <a href="#">B29B 17/00</a> )}	18/36	. . Knives or perforated discs
18/16	. . Details	18/362	. . . {Knives}
2018/162	. . . {Shape or inner surface of shredder-housings}	18/365	. . . {Perforated discs}
2018/164	. . . {Prevention of jamming and/or overload}	2018/367	. . . {Resiliently mounted knives or discs}
2018/166	. . . {Lubricating the knives of the cutting mechanisms}	18/38	. . Drives
2018/168	. . . {User safety devices or measures in shredders}	<b>19/00</b>	<b>Other disintegrating devices or methods (for grain <a href="#">B02C 9/00</a>)</b>
18/18	. . . Knives; Mountings thereof	19/0006	. {Crushing by endless flexible members (with cutting or tearing members <a href="#">B02C 18/0076</a> )}
18/182	. . . . {Disc-shaped knives}	19/0012	. {Devices for disintegrating materials by collision of these materials against a breaking surface or breaking body and/or by friction between the material particles (also for grain)}
		19/0018	. . {using a rotor accelerating the materials centrifugally against a circumferential breaking surface (rotors with beater elements <a href="#">B02C 13/09</a> , <a href="#">B02C 13/1807</a> )}
		19/0025	. . . {by means of a rotor with radially extending channels}
		19/0031	. . . {by means of an open top rotor}
		19/0037	. . . . {with concentrically arranged open top rotors}
		19/0043	. . {the materials to be pulverised being projected against a breaking surface or breaking body by a pressurised fluid (jet mills <a href="#">B02C 19/06</a> )}



19/005	. . {the materials to be pulverised being disintegrated by collision of, or friction between, the material particles ( <a href="#">jet mills B02C 19/06</a> )}	23/06	. Selection or use of additives to aid disintegrating
19/0056	. {specially adapted for specific materials not otherwise provided for}	23/08	. Separating or sorting of material, associated with crushing or disintegrating ( <a href="#">B02C 23/18 takes precedence</a> }; beater mills combined with sifting devices <a href="#">B02C 13/13</a> , <a href="#">B02C 13/14</a> ; for tumbling mills <a href="#">B02C 17/1835</a> )}
19/0062	. . {specially adapted for shredding scrap metal, e.g. automobile bodies}	23/10	. . with separator arranged in discharge path of crushing or disintegrating zone
19/0068	. . {specially adapted for breaking-up fluorescent tubes}	23/12	. . . with return of oversize material to crushing or disintegrating zone
19/0075	. . {specially adapted for disintegrating medical waste ( <a href="#">disposal of medical waste B09B 3/0075</a> , <a href="#">sterilisation of refuse A61L 11/00</a> )}	23/14	. . with more than one separator
19/0081	. . {specially adapted for breaking-up bottles}	23/16	. . with separator defining termination of crushing or disintegrating zone, e.g. screen denying egress of oversize material
19/0087	. . . {for glass bottles}	2023/165	. . . {Screen denying egress of oversize material}
19/0093	. . . {for plastic bottles}	23/18	. Adding fluid, other than for crushing or disintegrating by fluid energy ({for tumbling mills <a href="#">B02C 17/186</a> }; feeding devices <a href="#">B02C 23/02</a> )}
19/06	. Jet mills	23/20	. . after crushing or disintegrating
19/061	. . {of the cylindrical type ( <a href="#">B02C 19/068 takes precedence</a> )}	23/22	. . . with recirculation of material to crushing or disintegrating zone
19/063	. . {of the toroidal type ( <a href="#">B02C 19/068 takes precedence</a> )}	23/24	. . Passing gas through crushing or disintegrating zone ({ <a href="#">B02C 15/001</a> }, <a href="#">B02C 23/38</a> , <a href="#">B02C 23/40 take precedence</a> )}
19/065	. . {of the opposed-jet type ( <a href="#">B02C 19/068 takes precedence</a> )}	23/26	. . . characterised by point of gas entry or exit or by gas flow path
19/066	. . {of the jet-anvil type ( <a href="#">B02C 19/068 takes precedence</a> )}	23/28	. . . gas moving means being integral with, or attached to, crushing or disintegrating element
19/068	. . {of the fluidised-bed type}	23/30	. . . the applied gas acting to effect material separation ( <a href="#">B02C 23/34 takes precedence</a> )}
19/08	. Pestle and mortar	23/32	. . . with return of oversize material to crushing or disintegrating zone ( <a href="#">B02C 23/34 takes precedence</a> )}
19/10	. Mills in which a friction block is towed along the surface of a cylindrical or annular member	23/34	. . . gas being recirculated to crushing or disintegrating zone
19/11	. High-speed drum mills ( <a href="#">for separating B04B</a> )	23/36	. . the crushing or disintegrating zone being submerged in liquid
19/16	. Mills provided with vibrators ({ <a href="#">roller mills B02C 4/423</a> }; <a href="#">tumbling mills B02C 17/14</a> )}	23/38	. . in apparatus having multiple crushing or disintegrating zones
19/18	. Use of auxiliary physical effects, e.g. ultrasonics, irradiation, for disintegrating	23/40	. . with more than one means for adding fluid to the material being crushed or disintegrated
2019/183	. . {Crushing by discharge of high electrical energy}	25/00	<b>Control arrangements specially adapted for crushing or disintegrating</b>
19/186	. . {Use of cold or heat for disintegrating ( <a href="#">B02C 4/44</a> , <a href="#">B02C 7/17</a> , <a href="#">B02C 11/08 take precedence</a> )}	2201/00	<b>Codes relating to disintegrating devices adapted for specific materials</b>
19/20	. Disintegrating by grating ({ <a href="#">domestic food grating devices A47J 43/25</a> })}	2201/02	. for reinforced concrete
19/22	. Crushing mills with screw-shaped crushing means	2201/04	. for used tyres
21/00	<b>Disintegrating plant with or without drying of the material (<a href="#">for grain B02C 9/04</a>)</b>	2201/06	. for garbage, waste or sewage
21/002	. {using a combination of a roller mill and a drum mill}	2201/063	. . for waste water or sewage
21/005	. . {the roller mill having cooperating rollers}	2201/066	. . for garden waste
21/007	. {using a combination of two or more drum or tube mills}	2210/00	<b>Codes relating to different types of disintegrating devices</b>
21/02	. Transportable disintegrating plant	2210/01	. Indication of wear on beaters, knives, rollers, anvils, linings and the like
2021/023	. . {for disintegrating material on the surface of the ground}	2210/02	. Features for generally used wear parts on beaters, knives, rollers, anvils, linings and the like
21/026	. . {self-propelled}		
23/00	<b>Auxiliary methods or auxiliary devices or accessories specially adapted for crushing or disintegrating not provided for in preceding groups or not specially adapted to apparatus covered by a single preceding group ({specially adapted for grain mills <a href="#">B02C 11/00</a>}; separating or sorting in general <a href="#">B03</a>, <a href="#">B04</a>, <a href="#">B07</a>)}</b>		
23/02	. Feeding devices ({for grain mills <a href="#">B02C 11/04</a> ; for roller mills <a href="#">B02C 4/286</a> }; transport devices in general <a href="#">B65G</a> )}		
23/04	. Safety devices ( <a href="#">in general F16P</a> }; for rotary mills <a href="#">B02C 13/31</a> )}		