

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B65 CONVEYING; PACKING; STORING; HANDLING THIN OR FILAMENTARY MATERIAL

B65B MACHINES, APPARATUS OR DEVICES FOR, OR METHODS OF, PACKAGING ARTICLES OR MATERIALS; UNPACKING (bundling and pressing devices for cigars [A24C 1/44](#); devices for tensioning and securing binders adapted to be supported by the article or articles to be bound [B25B 25/00](#); applying closure members to bottles, jars or similar containers [B67B 1/00](#)-[B67B 6/00](#); concurrent cleaning, filling and closing of bottles [B67C 7/00](#); emptying bottles, jars, cans, casks, barrels or similar containers [B67C 9/00](#))

NOTE

The term "packaging" should be understood as including mainly the following operations:

filling portable containers or receptacles with materials or small articles to form packages

inserting articles, or groups of articles, into containers or receptacles

closing filled containers or receptacles otherwise than by metal-, glass-, or wood-working operations

enclosing, or partially enclosing, articles or quantities of material, in sheets, strips, blanks, webs, or tubes of thin flexible material, e.g. wrapping

bundling articles, e.g. holding articles together in groups by applying string or wire

attaching articles to cards, sheets, or webs

Operations of these types employed in the manufacture of articles other than packages are classified in other appropriate subclasses, e.g. making confectionery products by casting in moulds formed by wrappers [A23G](#), filling ammunition cartridges [F42B](#). Methods of packaging which are wholly characterised by the form of the package produced, or the form of the container or packaging-element utilised, are to be classified in [B65D](#) rather than in this subclass. In the following elaborations, the term "package" is used to mean the end product of a packaging operation, e.g. a filled and closed container, an article enclosed in a wrapper, a group of articles held together by string or wire, a crate of bottles. In the following elaborations, the term "materials" is to be understood as embracing matter, or masses of articles, which are to be packaged, as distinct from separate or individual articles. Machines, apparatus or methods of general application for packaging articles or materials

WARNINGS

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

B65B 51/09	covered by	B65B 51/00
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- In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Machines, apparatus or methods of general application for packaging articles or materials

1/00	Packaging fluent solid material, e.g. powders, granular or loose fibrous material, loose masses of small articles, in individual containers or receptacles, e.g. bags, sacks, boxes, cartons, cans, or jars	1/08	. . by vibratory feeders
		1/10	. . by rotary feeders
		1/12	. . . of screw type
		1/14	. . . of centrifugal type
		1/16	. . by pneumatic means, e.g. by suction
		1/18	. . for filling valve-bags
		1/20	. Reducing volume of filled material
1/02	. Machines characterised by the incorporation of means for making the containers or receptacles (from flat, folded, or tubular webs of flexible sheet material B65B 9/00 ; making containers or receptacles of interest apart from this application, see the appropriate subclasses)	1/22	. . by vibration
		1/24	. . by mechanical compression
		1/26	. . by pneumatic means, e.g. suction
		1/28	. Controlling escape of air or dust from containers or receptacles during filling
1/04	. Methods of, or means for, filling the material into the containers or receptacles	1/30	. Devices or methods for controlling or determining the quantity or quality or the material fed or filled
1/06	. . by gravity flow	1/32	. . by weighing (check-weighing of filled containers or receptacles B65B 1/46)

- 1/34 . . . Adjusting weight by trickle feed
- 1/36 . . by volumetric devices or methods ([checking volume of filled material B65B 1/48](#))
- 1/363 . . . {with measuring pockets moving in an endless path}
- 1/366 {about a horizontal axis of symmetry}
- 1/38 . . . by pistons co-operating with measuring chambers
- 1/385 {moving in an endless path}
- 1/40 . . by timing of filling operations
- 1/42 . . . and arresting flow by cut-off means
- 1/44 . . Checking density of material to be filled
- 1/46 . . Check-weighing of filled containers or receptacles
- 1/48 . . Checking volume of filled material
- 3/00 Packaging plastic material, semiliquids, liquids or mixed solids and liquids, in individual containers or receptacles, e.g. bags, sacks, boxes, cartons, cans, or jars**
- 3/003 . {Filling medical containers such as ampoules, vials, syringes or the like}
- 3/006 . . {Related operations, e.g. scoring ampoules}
- 3/02 . Machines characterised by the incorporation of means for making the containers or receptacles ([making containers or receptacles of interest apart from this application, see appropriate subclasses](#))
- 3/022 . . {Making containers by moulding of a thermoplastic material}
- 3/025 . . {Making parallelepipedal containers from a single carton blank}
- 3/027 . . {Making containers from separate body and end-parts}
- 3/04 . Methods of, or means for, filling the material into the containers or receptacles
- 3/045 . . {for filling flexible containers having a filling and dispensing spout, e.g. containers of the "bag-in-box"-type}
- 3/06 . . by gravity flow
- 3/08 . . by screw-type feeders
- 3/10 . . by application of pressure to material ([by screw-type feeders B65B 3/08](#))
- 3/12 . . . mechanically, e.g. by pistons or pumps
- 3/14 . . . pneumatically
- 3/16 . . for filling collapsible tubes ([for filling valve bags B65B 3/17](#))
- 3/17 . . for filling valve bags
- 3/18 . Controlling escape of air from containers or receptacles during filling
- 3/22 . Defoaming liquids in connection with filling
- 3/24 . Topping-up containers or receptacles to ensure complete filling
- 3/26 . Methods or devices for controlling the quantity of the material fed or filled
- 3/28 . . by weighing
- 3/30 . . by volumetric measurement
- 3/305 . . . {with measuring pockets moving in an endless path}
- 3/32 . . . by pistons co-operating with measuring chambers
- 3/323 {with measuring chambers travelling in an endless path}
- 3/326 {for dosing several products to be mixed}
- 3/34 . . by timing of filling operations
- 3/36 . . . and arresting flow by cut-off means
- 5/00 Packaging individual articles in containers or receptacles, e.g. bags, sacks, boxes, cartons, cans, jars**
- 5/02 . Machines characterised by incorporation of means for making the containers or receptacles ([making containers or receptacles of interest apart from this application, see the appropriate subclasses](#))
- 5/022 . . {for making bags}
- 5/024 . . {for making containers from preformed blanks}
- 5/026 . . . {for making trays}
- 5/028 . . . {for making containers from two or more blanks ([B65B 5/026 takes precedence](#))}
- 5/04 . Packaging single articles
- 5/045 . . {in bags}
- 5/06 . Packaging groups of articles, the groups being treated as single articles
- 5/061 . . {Filled bags}
- 5/062 . . {Confectionery}
- 5/064 . . {Potato chips}
- 5/065 . . {Gable-topped container}
- 5/067 . . {in bags ([B65B 5/061 - B65B 5/065 take precedence](#))}
- 5/068 . . {in trays ([B65B 5/061 - B65B 5/065 take precedence](#))}
- 5/08 . Packaging groups of articles, the articles being individually gripped or guided for transfer to the containers or receptacles
- 5/10 . Filling containers or receptacles progressively or in stages by introducing successive articles, or layers of articles
- 5/101 . . {by gravity ([B65B 5/12 and B65B 5/108 take precedence](#))}
- 5/103 . . . {for packaging pills or tablets}
- 5/105 . . {by grippers ([B65B 5/12 and B65B 5/108 take precedence](#))}
- 5/106 . . {by pushers ([B65B 5/12 and B65B 5/108 take precedence](#))}
- 5/108 . . {Article support means temporarily arranged in the container}
- 5/12 . . Introducing successive articles, e.g. confectionery products, of different shape or size in predetermined positions
- 7/00 Closing containers or receptacles after filling**
- 7/01 . Machines characterised by incorporation of means for making the closures before applying ([making closures, of interest apart from this application, see the relevant subclass](#))
- 7/02 . Closing containers or receptacles deformed by, or taking-up shape, of, contents, e.g. bags, sacks
- 7/025 . . {Closing valve bags}
- 7/04 . . by tucking-in mouth portion to form two flaps and subsequently folding-down
- 7/06 . . by collapsing mouth portion, e.g. to form a single flap
- 7/08 . . . and folding
- 7/10 . . . and rolling-in
- 7/12 . . . and twisting
- 7/14 . Closing collapsible or resilient tubes, e.g. for tooth paste, for lighter fuel
- 7/16 . Closing semi-rigid or rigid containers or receptacles not deformed by, or not taking-up shape of, contents, e.g. boxes or cartons

- 7/161 . . . {Sealing filled ampoules}
- 7/162 . . . {by feeding web material to securing means}
- 7/164 . . . {Securing by heat-sealing}
- 7/165 . . . {Securing by deformation of the web material}
- 7/167 . . . {Securing by heat-shrinking}
- 7/168 . . . {by applying and securing double closures}
- 7/18 . . . by collapsing mouth portion and subsequently folding-down or securing flaps
- 7/20 . . . by folding-down preformed flaps
- 7/22 . . . and inserting flap portions between contents and wall
- 7/24 . . . and interengaging tongue and slot closures
- 7/26 . . . by closing hinged lids
- 7/28 . . . by applying separate preformed closures, e.g. lids, covers
- 7/2807 . . . {Feeding closures}
- 7/2814 {the closures being interconnected}
- 7/2821 . . . {applying plugs or threadless stoppers (for bottles or jars [B67B 1/04](#))}
- 7/2828 . . . {inserting and rotating screw stoppers (for bottles or jars [B67B 1/06](#))}
- 7/2835 . . . {applying and rotating preformed threaded caps (for bottles or jars [B67B 3/20](#))}
- 7/2842 . . . {Securing closures on containers (in general [B65B 51/00](#))}
- 7/285 {by deformation of the closure}
- 7/2857 {and the container rim}
- 7/2864 {by adhesive tape}
- 7/2871 {by gluing}
- 7/2878 {by heat-sealing}
- 7/2885 {by heat-shrinking (in general [B65B 53/02](#))}
- 7/2892 {by deformation of the container rim}
- 9/00 Enclosing successive articles, or quantities of material, e.g. liquids or semiliquids, in flat, folded, or tubular webs of flexible sheet material; Subdividing filled flexible tubes to form packages**
- 9/02 . . . Enclosing successive articles, or quantities of material between opposed webs
- 9/023 . . . {Packaging fluent material ([B65B 9/04](#) takes precedence)}
- 9/026 . . . {the webs forming a curtain}
- 9/04 . . . one or both webs being formed with pockets for the reception of the articles, or of the quantities of material
- 9/042 . . . {for fluent material}
- 9/045 . . . {for single articles, e.g. tablets}
- 2009/047 . . . {Rotary pocket formers}
- 9/06 . . . Enclosing successive articles, or quantities of material, in a longitudinally-folded web, or in a web folded into a tube about the articles or quantities of material placed upon it
- NOTE**
- If an invention involves both continuous and intermittent web motion, it is classified in both groups [B65B 9/067](#) and [B65B 9/073](#).
- 2009/063 . . . {Forming shoulders}
- 9/067 . . . the web advancing continuously ([B65B 9/08](#) takes precedence)
- 9/073 . . . the web having intermittent motion ([B65B 9/08](#) takes precedence)
- 9/08 . . . in a web folded and sealed transversely to form pockets which are subsequently filled and then closed by sealing
- NOTE**
- If an invention involves both continuous and intermittent web motion, it is classified in both groups [B65B 9/087](#) and [B65B 9/093](#).
- 9/087 the web advancing continuously
- 9/093 the web having intermittent motion
- 9/10 . . . Enclosing successive articles, or quantities of material, in preformed tubular webs, or in webs formed into tubes around filling nozzles, e.g. extruded tubular webs
- 9/12 . . . Subdividing filled tubes to form two or more packages by sealing or securing involving displacement of contents
- 9/13 . . . the preformed tubular webs being supplied in a flattened state
- 9/135 {for palletised loads}
- 9/14 Devices for distending tubes supplied in the flattened state
- 9/15 . . . the preformed tubular webs being stored on filling nozzles
- 9/18 Devices for storing tubular webs
- 9/20 . . . the webs being formed into tubes *in situ* around the filling nozzles
- NOTE**
- If an invention involves both continuous and intermittent web motion, it is classified in both groups [B65B 9/207](#) and [B65B 9/213](#).
- 9/2007 {Means for stripping or squeezing filled tubes prior to sealing to remove air or products from sealing area}
- 9/2014 {Tube advancing means}
- 9/2021 {combined with longitudinal welding devices}
- 9/2028 {Rollers or belts}
- 9/2035 {Tube guiding means}
- 9/2042 {Means for altering the cross-section of the tube filling opening prior to transversal sealing, e.g. tube spreading devices (subdividing filled tubes to form two or more packages by sealing involving displacement of contents [B65B 9/12](#))}
- 9/2049 {Package shaping devices acting on filled tubes prior to sealing the filling opening (shaping or reshaping completed packages [B65B 61/24](#))}
- 9/2056 {Machines for packages of special type or form}
- 9/2063 {The webs being spirally wound around the filling nozzle}
- 9/207 the web advancing continuously ([B65B 9/22](#) takes precedence)
- 9/213 the web having intermittent motion ([B65B 9/22](#) takes precedence)
- 9/22 Forming shoulders; Tube formers
- 9/24 . . . the tubes being formed *in situ* by extrusion

11/00	Wrapping, e.g. partially or wholly enclosing, articles or quantities of material, in strips, sheets or blanks, of flexible material (bundling articles by applying narrow strips or bands of flexible material B65B 13/00)	11/44	. . . . the ends of the tube being subsequently twisted
2011/002	. {Prestretching mechanism in wrapping machines}	11/46	. . . to fold the wrappers in channel form about contents and then to close the ends of the channel by folding and finally the mouth of the channel by folding or twisting
11/004	. {in blanks, e.g. sheets precut and creased for folding }	11/48	. Enclosing articles, or quantities of material, by folding a wrapper, e.g. a pocketed wrapper, and securing its opposed free margins to enclose contents
11/006	. {Helical strip wrapping combined with roping}	11/50	. Enclosing articles, or quantities of material, by disposing contents between two sheets, e.g. pocketed sheets, and securing their opposed free margins (apparatus or devices for forming pockets in or from sheets, blanks or webs B65B 47/00)
11/008	. {by webs revolving around articles moved along the axis of revolution}	11/52	. . one sheet being rendered plastic, e.g. by heating, and forced by fluid pressure, e.g. vacuum, into engagement with the other sheet and contents, e.g. skin- {, blister-, or bubble-} packaging
11/02	. Wrapping articles or quantities of material, without changing their position during the wrapping operation, e.g. in moulds with hinged folders (by doubling a wrapper and securing its opposed free margins to enclose contents B65B 11/48; by disposing contents between two sheets and securing their opposed free margins B65B 11/50)		WARNING Group B65B 11/52 is incomplete pending reclassification of documents from group B65B 33/00. Groups B65B 33/00 and B65B 11/52 should be considered in order to perform a complete search.
11/025	. . {by webs revolving around stationary articles}		
11/04	. the articles being rotated		
11/045	. . {by rotating platforms supporting the articles}		
11/06	. Wrapping articles, or quantities of material, by conveying wrapper and contents in {common} defined paths		
11/08	. . in a single straight path		
11/10	. . . to fold the wrappers in tubular form about contents		
11/105	. . . . {the axis of the tube being parallel to the conveying direction}	11/54	. Wrapping by causing the wrapper to embrace one end and all sides of the contents, and closing the wrapper onto the opposite end by forming regular or irregular pleats
11/12	. . . . and then to form closing folds of similar form at opposite ends of the tube	11/56	. Rolling articles with wrappers along a supporting surface
11/14	. . . . the ends of the tube being subsequently twisted	11/58	. Applying two or more wrappers, e.g. in succession
11/16	. . . to fold the wrappers in channel form about contents and then to close the ends of the channel by folding and finally the mouth of the channel by folding or twisting	11/585	. . {to stacked articles, e.g. pallettised loads}
11/18	. . in two or more straight paths	13/00	Bundling articles
11/20	. . . to fold the wrappers in tubular form about contents	13/02	. Applying and securing binding material around articles or groups of articles, e.g. using strings, wires, strips, bands or tapes
11/22	. . . . and then to form closing folds of similar form at opposite ends of the tube	13/022	. . {Applying preformed bands of continuous-ring form, e.g. elastic}
11/24	. . . . the ends of the tube being subsequently twisted	13/025	. . {Hand-held tools}
11/26	. . . to fold the wrappers in channel form about contents and then to close the ends of the channel by folding and finally the mouth of the channel by folding or twisting	13/027	. . . {for applying straps having preformed connecting means, e.g. cable ties}
11/28	. . in a curved path, e.g. on rotary tables or turrets	13/04	. . with means for guiding the binding material around the articles prior to severing from supply
11/30	. . . to fold the wrappers in tubular form about contents	13/06	. . . Stationary ducts or channels
11/32	. . . . and then to form closing folds of similar form at opposite ends of the tube	13/08	. . . Single guide or carrier for the free end of material movable part-away around articles from one side only
11/34	. . . . the ends of the tube being subsequently twisted	13/10	. . . Carriers travelling completely around the articles while holding the free end of material
11/36	. . . to fold the wrappers in channel form about contents and then to close the ends of the channel by folding and finally the mouth of the channel by folding or twisting	13/12	. . . . attached to rotating rings
11/38	. . in a combination of straight and curved paths	13/14	. . . Pairs of carriers or guides movable around opposite sides of the articles
11/40	. . . to fold the wrappers in tubular form about contents	13/16	. . with means for severing the binding material from supply and then applying it around the articles
11/42	. . . . and then to form closing folds of similar form at opposite ends of the tube	13/18	. Details of, or auxiliary devices used in, bundling machines {or bundling tools}
		13/181	. . {applying edge protecting members during bundling}
		13/182	. . {Affixing labels during bundling}
		13/183	. . {Load orienting means}

- 13/184 . . . {Strap accumulators}
- 13/185 . . . {Details of tools ([B65B 13/24](#) takes precedence)}
- 13/186 . . . {Supports or tables facilitating tensioning operations}
- 13/187 . . . {Motor means}
- 13/188 {pneumatic or hydraulic}
- 13/189 {using explosives}
- 13/20 . . Means for compressing or compacting bundles prior to bundling
- 13/22 . . Means for controlling tension of binding means
- 13/24 . . Securing ends of binding material
- 13/26 . . . by knotting
- 13/265 {Hand tools}
- 13/28 . . . by twisting
- 13/285 {Hand tools}
- 13/30 . . . by deforming the overlapping ends of the strip or band
- 13/305 {Hand tools}
- 13/32 . . . by welding, soldering, or heat-sealing; by applying adhesive
- 13/322 {Friction welding}
- 13/325 {Ultrasonic welding}
- 13/327 {Hand tools}
- 13/34 . . . by applying separate securing members, e.g. deformable clips
- 13/345 {Hand tools}
- 15/00 Attaching articles to cards, sheets, strings, webs, or other carriers**
- 15/02 . Attaching small articles, e.g. buttons, to cards
- 15/04 . Attaching a series of articles, e.g. small electrical components, to a continuous web {([ammunition filling F42B](#))}
- 17/00 Other machines, apparatus, or methods for packaging articles or materials**
- 17/02 . Joining articles, e.g. cans, directly to each other for convenience of storage, transport, or handling
- 17/025 . . {the articles being joined by a top carrier element}
- Machines, apparatus or methods adapted for packaging articles or materials presenting special problems, or for special packaging operations; Unpacking bottles or eggs**
- 19/00 Packaging rod-shaped or tubular articles susceptible to damage by abrasion or pressure, e.g. cigarettes, cigars, macaroni, spaghetti, drinking straws or welding electrodes**
- 19/02 . Packaging cigarettes
- 19/025 . . {in webs of flexible sheet material}
- 19/04 . . Arranging, feeding, or orientating the cigarettes
- 19/06 . . . Turning individual cigarettes to present printed marks in desired position
- 19/08 . . . Positioning oval cigarettes in overlapped arrangement
- 19/10 . . . Arranging cigarettes in layers each comprising a predetermined number
- 19/105 {using rotary drums for withdrawal of successive layers from a hopper}
- 19/12 . . Inserting the cigarettes, or wrapped groups thereof, into preformed containers
- 19/14 . . . into pocket boxes, e.g. boxes of rectangular form closed at one end by a flap adapted to be inserted into a slot in the body
- 19/16 into boxes with two pockets
- 19/18 . . . into drawer-and-shell type boxes or cartons
- 19/20 . . . into boxes with hinged lids
- 19/22 . . Wrapping the cigarettes; Packaging the cigarettes in containers formed by folding wrapping material around formers
- 19/221 {in one or more straight paths ([B65B 19/24](#) takes precedence)}
- 19/223 {in a curved path; in a combination of straight and curved paths, e.g. on rotary tables or other endless conveyors ([B65B 19/24](#) takes precedence)}
- 19/225 {the conveyors having continuous movement}
- 19/226 {using endless conveyors having pockets, each pocket being provided with separate members, e.g. folders ([B65B 19/225](#) takes precedence)}
- 19/228 . . . {Preparing and feeding blanks}
- 19/24 . . . using hollow mandrels through which groups of cigarettes are fed
- 19/245 {carried by continuously driven endless conveyors}
- 19/26 . Machines specially adapted for packaging cigars
- 19/28 . Control devices for cigarette or cigar packaging machines
- 19/30 . . responsive to presence of faulty articles, e.g. incorrectly filled cigarettes
- 19/32 . . responsive to incorrect grouping of articles or to incorrect filling of packages
- 19/34 . Packaging other rod-shaped articles, e.g. sausages, macaroni, spaghetti, drinking straws, welding electrodes
- 21/00 Packaging or unpacking of bottles ([bundling bottles B65B 27/04](#))**
- 21/02 . in or from preformed containers, e.g. crates
- 21/025 . . {the bottles being arranged in a head-to-bottom formation}
- 21/04 . . Arranging, assembling, feeding, or orientating the bottles prior to introduction into, or after removal from, containers {([B65B 21/025](#) takes precedence)}
- 21/06 . . . Forming groups of bottles
- 21/08 . . Introducing or removing single bottles, or groups of bottles, e.g. for progressive filling or emptying of containers
- 21/10 . . . using gravity flow
- 21/12 . . . using grippers engaging bottles, e.g. bottle necks
- 21/14 . . Introducing or removing groups of bottles, for filling or emptying containers in one operation
- 21/16 . . . using gravity flow
- 21/18 . . . using grippers engaging bottles, e.g. bottle necks
- 21/183 {the grippers moving in an endless path}
- 21/186 {Inflatable grippers}
- 21/20 with means for varying spacing of bottles
- 21/22 . . . by inverting and raising or lowering the container relative to bottles
- 21/24 . Enclosing bottles in wrappers
- 21/242 . . {in collapsed carton sleeves}
- 21/245 . . {in flexible wrappers, e.g. foils ([B65B 21/26](#) takes precedence)}

- 21/247 . . {Wrapping individual bottles in straw-made wrappers}
- 21/26 . . Applying wrappers to individual bottles by operations involving rotation or rolling of the bottles
- 23/00 Packaging fragile or shock-sensitive articles other than bottles; Unpacking eggs (embedding articles in shock-absorbing media [B65B 55/20](#))**
- 23/02 . Packaging or unpacking eggs
- 23/04 . . Erecting egg trays or cartons from collapsed blanks
- 23/06 . . Arranging, feeding, or orientating the eggs to be packed; Removing eggs from trays or cartons
- 23/08 . . . using grippers
- 23/10 . Packaging biscuits
- 23/12 . . Arranging, feeding or orientating the biscuits to be packaged
- 23/14 . . . Forming groups of biscuits
- 23/16 . . Inserting the biscuits, or wrapped groups thereof, into {already} preformed containers
- 23/18 . . Wrapping individual biscuits, or groups of biscuits
- 23/20 . Packaging plate glass, tiles, or shingles
- 23/22 . Packaging glass ampoules, lamp bulbs, radio valves or tubes, or the like
- 25/00 Packaging other articles presenting special problems (bundling [B65B 27/00](#))**
- 25/001 . {of foodstuffs, combined with their conservation ([B65B 25/041](#), [B65B 25/062](#), [B65B 25/067](#) take precedence)}
- 25/002 . {packaging of information carriers, e.g. records, CD, DVD}
- 25/003 . {packaging of razor blades}
- 25/005 . {packaging of confectionery}
- 25/006 . . {packaging of lollipops}
- 25/007 . {packaging of ice-cream}
- 25/008 . {packaging of contact lenses}
- 25/02 . Packaging agricultural or horticultural products
- 25/023 . . {Packaging flower bouquets}
- 25/026 . . {Packaging flower pots}
- 25/04 . . Packaging fruit or vegetables
- 25/041 . . . {combined with their conservation}
- 25/043 . . . {of olives}
- 25/045 . . . {by flotation means}
- 25/046 . . . {in crates or boxes ([B65B 25/045](#) takes precedence)}
- 25/048 . . . {in nets}
- 25/06 . Packaging slices or specially-shaped pieces of meat, cheese, or other plastic or tacky products
- 25/061 . . {of fish}
- 25/062 . . . {combined with its conservation}
- 25/064 . . {of poultry (processing of poultry [A22C 21/00](#))}
- 25/065 . . {of meat}
- 25/067 . . . {combined with its conservation}
- 25/068 . . {of cheese}
- 25/08 . . between layers or strips of sheet or web material, e.g. in webs folded to zig-zag form
- 25/10 . . Forming sector-shaped packages of cheese or like plastic products
- 25/12 . . . and enclosing in circular containers
- 25/14 . Packaging paper or like sheets, envelopes, or newspapers, in flat, folded, or rolled form
- 25/141 . . {packaging flat articles in boxes}
- 25/143 . . . {by introducing successive articles}
- 25/145 . . {packaging folded articles}
- 25/146 . . {packaging rolled-up articles}
- 25/148 . . . {Jumbo paper rolls}
- 25/16 . Packaging bread or like bakery products, e.g. unsliced loaves
- 25/18 . . Wrapping sliced bread
- 25/20 . Packaging garments, e.g. socks, stockings, shirts
- 25/22 . Packaging articles of food, e.g. fish fillets, intended to be cooked in the package
- 25/24 . Packaging annular articles, e.g. tyres
- 27/00 Bundling particular articles presenting special problems using string, wire, or narrow tape or band; Baling fibrous material, e.g. peat, not otherwise provided for**
- 27/02 . Bundling bricks or other building blocks
- 27/04 . Bundling groups of cans or bottles
- 27/06 . Bundling coils of wire or like annular objects
- 27/08 . Bundling paper sheets, envelopes, bags, newspapers, or other thin flat articles
- 27/083 . . {Storage receptacles therefor}
- 27/086 . . {using more than one tie, e.g. cross-ties}
- 27/10 . Bundling rods, sticks, or like elongated objects
- 27/105 . . {by means of adhesive tape}
- 27/12 . Baling or bundling compressible fibrous material, e.g. peat
- 27/125 . . {and wrapping or bagging}
- 29/00 Packaging of materials presenting special problems**
- 29/02 . Packaging of substances, e.g. tea, which are intended to be infused in the package
- WARNING**
- Group [B65B 29/02](#) is impacted by reclassification into groups [B65B 29/022](#), [B65B 29/025](#), and [B65B 29/028](#).
- Groups [B65B 29/02](#) and [B65B 29/022](#), [B65B 29/025](#) and [B65B 29/028](#) should be considered in order to perform a complete search.
- 29/022 . . {packaging infusion material into capsules}
- WARNING**
- Group [B65B 29/022](#) is incomplete pending reclassification of documents from group [B65B 29/02](#).
- Groups [B65B 29/02](#) and [B65B 29/022](#) should be considered in order to perform a complete search
- 29/025 . . {packaging infusion material into pods}
- WARNING**
- Group [B65B 29/025](#) is incomplete pending reclassification of documents from group [B65B 29/02](#).
- Groups [B65B 29/02](#) and [B65B 29/025](#) should be considered in order to perform a complete search.

29/028 . . {packaging infusion material into filter bags}

WARNING

Group [B65B 29/028](#) is incomplete pending reclassification of documents from group [B65B 29/02](#).

Groups [B65B 29/02](#) and [B65B 29/028](#) should be considered in order to perform a complete search.

29/04 . . Attaching, or forming and attaching, string handles or tags to tea bags

29/06 . . Packaging of substances to which a further ingredient, e.g. water, is to be added in the package by the user for mixing prior to dispensing

29/08 . . Packaging of edible materials intended to be cooked in the package ([infusible substances B65B 29/02](#))

29/10 . . Packaging two or more different substances isolated from one another in the package but capable of being mixed without opening the package, e.g. forming packages containing a resin and hardener isolated by a frangible partition

31/00 Packaging articles or materials under special atmospheric or gaseous conditions; Adding propellants to aerosol containers

31/003 . . {Adding propellants in fluid form to aerosol containers ([in solid form B65B 31/10](#))}

31/006 . . {Adding fluids for preventing deformation of filled and closed containers or wrappers}

31/02 . . Filling, closing, or filling and closing, containers {or wrappers} in chambers maintained under vacuum or superatmospheric pressure or containing a special atmosphere, e.g. of inert gas

31/021 . . {the containers or wrappers being interconnected}

31/022 . . {the chambers moving in an endless path}

31/024 . . {specially adapted for wrappers or bags ([B65B 31/021](#), [B65B 31/022](#) take precedence)}

31/025 . . {specially adapted for rigid or semi-rigid containers ([B65B 31/021](#), [B65B 31/022](#) take precedence)}

31/027 . . . {closed by a stopper}

31/028 . . . {closed by a lid sealed to the upper rim of the container, e.g. tray-like container}

31/04 . . Evacuating, pressurising or gasifying filled containers or wrappers by means of nozzles through which air or other gas, e.g. an inert gas, is withdrawn or supplied

31/041 . . {the nozzles acting from above on containers or wrappers open at their top ([B65B 31/044](#) take precedence)}

31/042 . . . {the nozzles being arranged for insertion into, and withdrawal from, the container or wrapper}

31/043 . . {the nozzles acting horizontally between an upper and a lower part of the container or wrapper, e.g. between container and lid}

31/044 . . {the nozzles being combined with a filling device ([B65B 31/043](#) takes precedence)}

31/045 . . . {of Vertical Form-Fill-Seal [VFFS] machines}

31/046 . . {the nozzles co-operating, or being combined, with a device for opening or closing the container or wrapper ([B65B 31/06](#) takes precedence)}

31/047 . . . {the nozzles co-operating with a check valve in the opening of the container or wrapper}

31/048 . . . {specially adapted for wrappers or bags}

31/06 . . the nozzle being arranged for insertion into, and withdrawal from, the mouth of a filled container and operating in conjunction with means for sealing the container mouth

31/08 . . the nozzle being adapted to pierce the container or wrapper

31/10 . . Adding propellants in solid form to aerosol containers

33/00 Packaging articles by applying removable, e.g. strippable, coatings ([B65B 11/52](#) takes precedence)

WARNING

Group [B65B 33/00](#) is impacted by reclassification into group [B65B 11/52](#).

Groups [B65B 33/00](#) and [B65B 11/52](#) should be considered in order to perform a complete search.

33/02 . . Packaging small articles, e.g. spare parts for machines or engines

33/04 . . Packaging large articles, e.g. complete machines, aircraft

33/06 . . the coating being applied to a supporting layer or framework of sheets or strips of thin flexible material, e.g. cocoon packaging

Details of, auxiliary devices applied to, or auxiliary measures taken in, machines, apparatus, or methods, not otherwise provided for

35/00 Supplying, feeding, arranging or orientating articles to be packaged

35/02 . . Supply magazines

35/04 . . with buffer storage devices

35/06 . . Separating single articles from loose masses of articles

35/08 . . using pocketed conveyors

35/10 . . Feeding, e.g. conveying, single articles

35/12 . . by gravity

35/14 . . by agitators or vibrators

35/16 . . by grippers

35/18 . . . by suction-operated grippers

35/20 . . by reciprocating or oscillatory pushers

35/205 . . . {linked to endless conveyors}

35/22 . . by roller-ways

35/24 . . by endless belts or chains ([B65B 35/205](#) takes precedence)}

35/243 . . . {using cooperating conveyors engaging the articles simultaneously}

35/246 . . . {using extensible or retractable conveyors}

35/26 . . by rotary conveyors

35/28 . . by pneumatic conveyors

35/30 . . Arranging and feeding articles in groups

35/32 . . by gravity

35/34 . . by agitators or vibrators

35/36 . . by grippers

35/38 . . . by suction-operated grippers

35/40 . . by reciprocating or oscillatory pushers

35/405 . . . {linked to endless conveyors}

35/42 . . by roller-ways

35/44 . . by endless belts or chains ([B65B 35/405](#) takes precedence)}

35/46 . . by rotary conveyors

35/48 . . by pneumatic conveyors

35/50	. . Stacking one article, or group of articles, upon another before packaging	41/18	. Registering sheets, blanks, or webs
35/52	. . . building-up the stack from the bottom	43/00	Forming, feeding, opening or setting-up containers or receptacles in association with packaging (forming pockets in sheets, blanks or webs, by pressing the material into forming dies or moving it through folding dies B65B 47/00)
35/54	. . Feeding articles along multiple paths to a single packaging position	43/02	. Forming flat bags from individual sheets or blanks
35/56	. Orientating, i.e. changing the attitude of, articles, e.g. of non-uniform cross-section	43/04	. Forming flat bags from webs
35/58	. . Turning articles by positively-acting means, e.g. to present labelled portions in uppermost position	43/06	. . from more than one web
37/00	Supplying or feeding fluent-solid, plastic, or liquid material, or loose masses of small articles, to be packaged (methods of, or means for, filling individual containers with such materials or articles B65B 1/04, B65B 3/04)	43/08	. Forming three-dimensional containers from sheet material
37/005	. {by endless belts or chains}	43/10	. . by folding the material
37/02	. by gravity flow	43/12	. Feeding flexible bags or carton blanks in flat or collapsed state; Feeding flat bags connected to form a series or chain
37/04	. by vibratory feeders	43/123	. . {Feeding flat bags connected to form a series or chain}
37/06	. by pistons or pumps	43/126	. . {Feeding carton blanks in flat or collapsed state}
37/08	. by rotary feeders	43/14	. . Feeding individual bags or carton blanks from piles or magazines
37/10	. . of screw type	43/145	. . . {Feeding carton blanks from piles or magazines}
37/12	. . of centrifugal type	43/16	. . . by grippers
37/14	. by pneumatic feeders	43/165	. . . . {specially adapted for carton blanks}
37/16	. Separating measured quantities from supply (in container-filling machines B65B 1/30, B65B 3/26)	43/18	. . . . by suction-operated grippers
37/18	. . by weighing {(devices or methods for controlling the quantity of material or liquid fed or filled into a container by weighing B65B 1/32, B65B 3/28)}	43/185	. . . . . {specially adapted for carton blanks}
37/20	. . by volume measurement	43/20	. . . by reciprocating or oscillating pushers
39/00	Nozzles, funnels or guides for introducing articles or materials into containers or wrappers	43/205	. . . . {specially adapted for carton blanks}
39/001	. {with flow cut-off means, e.g. valves}	43/22	. . . by rollers
39/002	. . {Pivoting plates}	43/225	. . . . {specially adapted for carton blanks}
39/003	. . {Rotating means}	43/24	. Breaking creases to facilitate setting-up cartons
39/004	. . {moving linearly}	43/26	. Opening or distending bags; Opening, erecting, or setting-up boxes, cartons, or carton blanks
39/005	. . . {transverse to flow direction}	43/262	. . {opening of valve bags}
39/006	. {Grids for introducing bottles into cases}	43/265	. . {Opening, erecting or setting-up boxes, cartons or carton blanks}
39/007	. {Guides or funnels for introducing articles into containers or wrappers}	43/267	. . {Opening of bags interconnected in a web}
2039/008	. {Strainer means}	43/28	. . by grippers co-operating with fixed supports
2039/009	. {Multiple outlets}	43/285	. . . {specially adapted for boxes, cartons or carton blanks}
39/02	. Expansible or contractible nozzles, funnels, or guides	43/30	. . by grippers engaging opposed walls, e.g. suction-operated
39/04	. having air-escape, or air-withdrawal, passages	43/305	. . . {specially adapted for boxes, cartons or carton blanks}
39/06	. adapted to support containers or wrappers	43/32	. . by external pressure diagonally applied
39/08	. . by means of clamps	43/325	. . . {to boxes, cartons or carton blanks}
39/10	. . . operating automatically	43/34	. . by internal pressure
39/12	. movable towards or away from container or wrapper during filling or depositing	43/345	. . . {applied to boxes, cartons or carton blanks}
39/14	. movable with a moving container or wrapper during filling or depositing	43/36	. . . applied pneumatically
39/145	. . {in an endless path}	43/365	. . . . {to boxes, cartons or carton blanks}
41/00	Supplying or feeding container-forming sheets or wrapping material	43/38	. Opening hinged lids
41/02	. Feeding sheets or wrapper blanks	43/39	. . Opening-out closure flaps clear of bag, box, or carton mouth
41/04	. . by grippers	43/40	. Removing separate lids
41/06	. . . by suction-operated grippers	43/41	. Opening drawer-and-shell cartons
41/08	. . by reciprocating or oscillating pushers	43/42	. Feeding or positioning bags, boxes, or cartons in the distended, opened, or set-up state; Feeding preformed rigid containers, e.g. tins, capsules, glass tubes, glasses, to the packaging position; Locating containers or receptacles at the filling position (by means of filling-nozzles B65B 39/00); Supporting containers or receptacles during the filling operation (by filling-nozzles B65B 39/00)
41/10	. . by rollers		
41/12	. Feeding webs from rolls		
41/14	. . by grippers		
41/16	. . by rollers		

43/44	. . from supply magazines	51/08	. . Applying binding material, e.g. to twisted bag necks
43/46	. . using grippers		
43/465	. . . {for bags}	51/10	. Applying or generating heat or pressure or combinations thereof {(welding of plastics per se B29C 65/02; closing plastic tube ends in general B29C 57/10)}
43/48	. . using reciprocating or oscillating pushers		
43/50	. . using rotary tables or turrets {(B65B 43/46 takes precedence)}		
43/52	. . using roller-ways or endless conveyors	2051/105	. . {Heat seal temperature control}
43/54	. . Means for supporting containers or receptacles during the filling operation	51/12	. . by resilient means, e.g. brushes
43/56	. . . movable stepwise to position container or receptacle for the reception of successive increments of contents	51/14	. . by reciprocating or oscillating members (B65B 51/148 takes precedence)
43/58	. . . . vertically movable	51/142	. . . {Closing bottle necks or tubes}
43/59	. . . vertically movable (B65B 43/58 takes precedence)	51/144	. . . {Closing paperboard containers}
43/60	. . . rotatable	51/146	. . . {Closing bags}
43/62	. . . . about an axis located at the filling position, e.g. the axis of the container or receptacle	51/148	. . . {Hand-operated members}
		51/16	. . by rotary members
		51/18	. . by endless bands or chains
		51/20	. . by fluid pressure acting directly on folds or on opposed surfaces, e.g. using hot-air jets (shrinking wrappers by heating B65B 53/02)
45/00	Apparatus or devices for supporting or holding wrappers during wrapping operation	51/22	. . by friction or ultrasonic or high-frequency electrical means {, i.e. by friction or ultrasonic or induction welding}
47/00	Apparatus or devices for forming pockets or receptacles in or from sheets, blanks, or webs, comprising essentially a die into which the material is pressed or a folding die through which the material is moved	51/222	. . . {by friction welding}
47/02	. with means for heating the material prior to forming	51/225	. . . {by ultrasonic welding}
47/04	. by application of mechanical pressure	51/227	. . . {by induction welding}
47/06	. . using folding dies	51/24	. . to produce bead seals (combined with severing by heated wires or rods B65B 61/10)
47/08	. by application of fluid pressure		
47/10	. . by vacuum	51/26	. . Devices specially adapted for producing transverse or longitudinal seams in webs or tubes
		51/28	. . . Rollers for producing longitudinal and transverse seams simultaneously
49/00	Devices for folding or bending wrappers around contents	51/30	. . . Devices, e.g. jaws, for applying pressure and heat, e.g. for subdividing filled tubes
49/02	. Fixed or resiliently-mounted folders, e.g. non-driven rollers	51/303	. . . . {reciprocating along only one axis}
49/04	. . Ploughs or plates with inclined slots or opposed inclined edges	51/306	. . . . {Counter-rotating devices}
49/06	. Resilient folders, e.g. brushes, diaphragms	51/32	. Cooling, or cooling and pressing, package closures after heat-sealing
49/08	. Reciprocating or oscillating folders	53/00	Shrinking wrappers, containers, or container covers during or after packaging
49/10	. Folders movable in closed non-circular paths	53/02	. by heat
49/12	. Rotary folders	53/04	. . supplied by liquids
49/14	. Folders forming part of, or attached to, conveyors for partially-wrapped articles	53/06	. . supplied by gases, e.g. hot-air jets
49/16	. Pneumatic means, e.g. air jets	53/063	. . . {Tunnels}
		53/066	. . . {Mobile frames, hoods, posts or the like}
51/00	Devices for, or methods of, sealing or securing package folds or closures; Devices for gathering or twisting wrappers, or necks of bags	55/00	Preserving, protecting or purifying packages or package contents in association with packaging (by packaging under special atmospheric or gaseous conditions B65B 31/00; devices for placing protecting sheets, plugs, or wads over contents B65B 61/22)
51/02	. Applying adhesives or sealing liquids		
51/023	. . {using applicator nozzles}	55/02	. Sterilising, e.g. of complete packages
51/026	. . {using rotating applicators}	55/022	. . {of flexible containers having a filling and dispensing spout, e.g. containers of the "bag-in-box"-type (B65B 55/025, B65B 55/027 take precedence)}
51/04	. Applying separate sealing or securing members, e.g. clips, (applying separate lids or covers B65B 7/28)		
51/043	. . {Applying springy clips around bag necks}	55/025	. . {Packaging in aseptic tunnels}
51/046	. . {Applying a closure element to the mouths of bags}	55/027	. . {Packaging in aseptic chambers}
51/05	. . Stapling	55/04	. . Sterilising wrappers or receptacles prior to, or during, packaging {(sterilising bottles B67C 7/00)}
51/06	. . Applying adhesive tape		
51/062	. . . {to the mouths of bags}	55/06	. . . by heat
51/065	. . . {to the necks of bags}	55/08	. . . by irradiation
51/067	. . . {to the closure flaps of boxes}	55/10	. . . by liquids or gases
51/07	. . Sewing or stitching		

55/103	. . . . {Sterilising flat or tubular webs}	61/04	. for severing webs, or for separating joined packages
55/106	. . . . {Sterilising connected bags}	61/06	. . by cutting
55/12	. . Sterilising contents prior to, or during, packaging	61/065	. . . {by punching out}
55/14	. . . by heat	61/08	. . . using rotary cutters
55/16	. . . by irradiation	61/10	. . . using heated wires or cutters
55/18	. . . by liquids or gases (B65B 55/14 takes precedence)	61/12	. . by tearing along perforations or lines of weakness
55/19	. . . by adding materials intended to remove free oxygen or to develop inhibitor gases, e.g. vapour phase inhibitors	61/14	. for incorporating, or forming and incorporating, handles or suspension means in packages (attaching, or forming and attaching, string handles or tags to tea-bags B65B 29/04)
55/20	. Embedding contents in shock-absorbing media, e.g. plastic foam, granular material	61/16	. . Forming suspension apertures in packages
55/22	. Immersing contents in protective liquids	61/18	. for making package-opening or unpacking elements
55/24	. Cleaning of, or removing dust from, containers, wrappers, or packaging {; Preventing of fouling}	61/182	. . {by applying tear-strips or tear-tapes}
57/00	Automatic control, checking, warning, or safety devices (registering wrapping or container-forming material fed from rolls B65B 41/18)	61/184	. . {by applying tabs over discharge openings, e.g. over discharge openings defined by tear or score lines}
57/005	. {Safety-devices (B65B 57/18 takes precedence)}	61/186	. . {by applying or incorporating rigid fittings, e.g. discharge spouts}
57/02	. responsive to absence, presence, abnormal feed, or misplacement of binding or wrapping material, containers, or packages	61/188	. . {by applying or incorporating profile-strips, e.g. for reclosable bags}
57/04	. . and operating to control, or to stop, the feed of such material, containers, or packages	61/20	. for adding cards, coupons or other inserts to package contents (adding unpacking elements B65B 61/18)
57/06	. . and operating to control, or to stop, the feed of articles or material to be packaged	61/202	. . {for attaching articles to the outside of a container (B65B 61/205 takes precedence)}
57/08	. . and operating to stop, or to control the speed of, the machine as a whole	61/205	. . {for adding drinking straws to a container}
57/10	. responsive to absence, presence, abnormal feed, or misplacement of articles or materials to be packaged	61/207	. . {for inserting partitions between package contents}
57/12	. . and operating to control, or stop, the feed of wrapping materials, containers, or packages	61/22	. . for placing protecting sheets, plugs, or wads over contents, e.g. cotton-wool in bottles of pills
57/14	. . and operating to control, or stop, the feed of articles or material to be packaged	61/24	. for shaping or reshaping completed packages
57/145	. . . {for fluent material}	61/26	. for marking or coding completed packages
57/16	. . and operating to stop, or to control the speed of, the machine as a whole	61/28	. for discharging completed packages from machines
57/18	. causing operation of audible or visible alarm signals	63/00	Auxiliary devices, not otherwise provided for, for operating on articles or materials to be packaged
57/20	. Applications of counting devices for controlling the feed of articles (other applications B65B 65/08)	63/005	. {for marking or coding articles prior to packaging}
59/00	Arrangements to enable machines to handle articles of different sizes, to produce packages of different sizes, to vary the contents of packages or to give access for cleaning or maintenance purposes	63/02	. for compressing or compacting articles or materials prior to wrapping or insertion in containers or receptacles
59/005	. {Adjustable conveying means (B65B 59/02 takes precedence)}	63/022	. . {using compressing chambers or plates moving in an endless path}
59/02	. Arrangements to enable adjustments to be made while the machine is running	63/024	. . {for compressing by winding}
59/04	. Machines constructed with readily-detachable units or assemblies, e.g. to facilitate maintenance	63/026	. . {for compressing by feeding articles through a narrowing space}
61/00	Auxiliary devices, not otherwise provided for, for operating on sheets, blanks, webs, binding material, containers or packages	63/028	. . {by pneumatic means}
61/002	. {for drying glued or sealed packages}	63/04	. for folding or winding articles, e.g. gloves or stockings
61/005	. {for removing material by cutting}	63/045	. . {for folding garments, e.g. stockings, shirts}
61/007	. {Perforating strips of completed packages}	63/06	. . Forming elongated hanks, e.g. of shoe laces
61/02	. for perforating, scoring {, slitting,} or applying code or date marks on material prior to packaging (scoring ampoules B65B 3/006)	63/08	. for heating or cooling articles or materials to facilitate packaging
61/025	. . {for applying, e.g. printing, code or date marks on material prior to packaging}	65/00	Details peculiar to packaging machines and not otherwise provided for; Arrangements of such details
		65/003	. {Packaging lines, e.g. general layout}
		65/006	. . {Multiple parallel packaging lines}
		65/02	. Driving gear
		65/04	. Mechanisms for converting a continuous rotary motion to intermittent rotary motion, e.g. Geneva drives
		65/06	. coated or treated with anti-friction or anti-sticking materials, e.g. polytetrafluoroethylene

- 65/08 . Devices for counting or registering the number of articles handled, or the number of packages produced by the machine
- 67/00 Apparatus or devices facilitating manual packaging operations; Sack holders**
- 67/02 . Packaging of articles or materials in containers
- 67/04 . . Devices facilitating the insertion of articles or materials into bags {, e.g. guides or chutes ([sack holders B65B 67/12](#))}
- 67/06 . . Manually-operable devices for closing bag necks, by applying and securing lengths of string, wire or tape
- 67/08 . Wrapping of articles
- 67/085 . . {using hand-held dispensers for stretch films}
- 67/10 . . Wrapping-tables
- 67/12 . Sack holders, i.e. stands or frames with means for supporting sacks in the open condition to facilitate filling with articles or materials {(nozzles, funnels or guides adapted to support sacks [B65B 39/06](#))}
- 67/1205 . . {collapsible or foldable ([B65B 67/1216](#), [B65B 67/1244](#), [B65B 67/1255](#) take precedence)}
- 67/1211 . . {characterised by mechanisms for moving, e.g. pivoting, lids or frame parts, e.g. pedal-operated ([B65B 67/1216](#) takes precedence; pedal-operated mechanisms for opening or closing container lids [B65D 43/26](#))}
- 67/1216 . . {co-operating with the door of a cabinet or the like}
- 67/1222 . . {characterised by means for suspending sacks, e.g. pedal-operated}
- 67/1227 . . . {only by a part of the periphery, e.g. by single points or handles, or by one side or two opposite sides only ([B65B 67/1244](#) takes precedence)}
- 67/1233 . . . {Clamping or holding means}
- 67/1238 . . {Inserts or external supports, e.g. baskets, for stiffening sacks in the open condition}
- 67/1244 . . {characterised by mechanisms for temporarily closing the mouth of the sack, e.g. pedal-operated ([B65B 67/1211](#), [B65B 67/1255](#) take precedence; final closing or sealing of sacks [B65B 7/02](#), [B65B 51/00](#))}
- 67/125 . . . {comprising resilient closing elements, e.g. inserts, cooperating with the mouth of the sack}
- 67/1255 . . {characterised by positively acting means for stretching the mouth of the sack into the open condition, e.g. using springs}
- 2067/1261 . . {Holders with lids}
- 67/1266 . . {specially adapted for storing or dispensing sacks from a supply}
- 2067/1272 . . . {the sacks being rolled-up}
- 67/1277 . . . {for dispensing flexible tubular material gathered up in the shape of a ring}
- 2067/1283 . . {Means for gathering, closing or sealing the sacks}
- 2067/1288 . . {Inflatable parts}
- 2067/1294 . . {Holders for multiple sacks}
- 69/00 Unpacking of articles or materials, not otherwise provided for**
- 69/0008 . {Opening and emptying bags}
- 69/0016 . . {for urine bags or medical drainage bags}
- 69/0025 . {Removing or cutting binding material, e.g. straps or bands}

- 69/0033 . {by cutting ([B65B 69/0008-B65B 69/0025](#) take precedence)}
- 69/0041 . . {by puncturing}
- 69/005 . {by expelling contents, e.g. by squeezing the container}
- 69/0058 . . {Solid contents}
- 69/0066 . {Heating materials to facilitate their unpacking}
- 69/0075 . {Emptying systems for flexible intermediate bulk containers [FIBC]}
- 69/0083 . . {using frames whereby the container is only suspended}
- 69/0091 . . {using frames whereby the container is bottom supported}

2210/00 Specific aspects of the packaging machine

- 2210/02 . Plurality of alternative input or output lines or plurality of alternative packaging units on the same packaging line for improving machine flexibility
- 2210/04 . Customised on demand packaging by determining a specific characteristic, e.g. shape or height, of articles or material to be packaged and selecting, creating or adapting a packaging accordingly, e.g. making a carton starting from web material
- 2210/06 . Sterilising or cleaning machinery or conduits ([cleaning machinery in general B08B](#))
- 2210/08 . . Cleaning nozzles, funnels or guides through which articles are introduced into containers or wrappers
- 2210/10 . Means for removing bridges formed by the material or article, e.g. anti-clogging devices
- 2210/12 . Means for automatically detecting and removing jammed straps in strapping machines, e.g. jam clearing devices
- 2210/14 . Details of wrapping machines with web dispensers for application of a continuous web in layers onto the articles
- 2210/16 . . the web dispenser travelling around the article along a non-rotating ring
- 2210/18 . . the web dispenser being mounted on a rotary ring
- 2210/20 . . the web dispenser being mounted on a rotary arm

Details of, auxiliary devices applied to, or auxiliary measures taken in, machines, apparatus, or methods, not otherwise provided for

- 2220/00 Specific aspects of the packaging operation**
- 2220/02 . Erecting a carton by pushing a blank into a form
- 2220/04 . Means for, or method of collapsing containers with walls hinged together or detachably connected ([such containers per se B65D 11/18](#))
- 2220/06 . Cutting webs along their longitudinal direction
- 2220/08 . Creating fin seals as the longitudinal seal on horizontal or vertical form fill seal [FFS] machines
- 2220/10 . Creating an off-center longitudinal seal on horizontal or vertical form fill seal [FFS] machines
- 2220/12 . Creating additional longitudinal welds on horizontal or vertical form fill seal [FFS] machines for stiffening packages or for creating package edges
- 2220/14 . Adding more than one type of material or article to the same package
- 2220/16 . Packaging contents into primary and secondary packaging

- 2220/18 . . the primary packaging being bags the subsequent secondary packaging being rigid containers, e.g. cardboard box
- 2220/20 . . the primary packaging being bags, the secondary packaging being further bags, the primary bags being either finished or formed concurrently with the secondary bags
- 2220/22 . Interconnected packages concurrently produced from the same web, the packages not being separated from one another
- 2220/24 . Cooling filled packages ([cooling articles or materials to be packaged B65B 63/08](#); [cooling package closures after heat sealing B65B 51/32](#))
- 2230/00 Aspects of the final package**
- 2230/02 . Containers having separate compartments isolated from one another ([B65B 29/10](#) and [B65B 2220/16](#) take precedence)
- 2230/04 . Cigarette packages having a hinged lid