B67B

COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B67 OPENING, CLOSING {OR CLEANING} BOTTLES, JARS OR SIMILAR CONTAINERS; LIQUID HANDLING

B67B APPLYING CLOSURE MEMBERS TO BOTTLES JARS, OR SIMILAR CONTAINERS; OPENING CLOSED CONTAINERS (opening or closing devices attached to, or incorporated in, containers or container closures B65D)

WARNINGS

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

B67B 7/46 covered by B67B 7/30 - B67B 7/385
B67B 7/48 - B67B 7/52 covered by B67B 7/24, B67B 7/26, B67B 7/28
B67B 7/54 - B67B 7/90 covered by B67B 7/30 - B67B 7/385

2. 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.

1/00 Closing bottles, jars or similar containers by applying stoppers (stoppers per se B65D 39/00)

1/005 . . . (Feeding stoppers (in general B65G))

1/03 . Pretreatment of stoppers, e.g. cleaning, steaming, heating, impregnating or coating; Applying resilient rings to stoppers (mechanical working of cork B27J 5/00)

1/04 . by inserting threadless stoppers, e.g. corks

1/045 . . . (using hand operated devices)

1/06 . by inserting and rotating screw stoppers

1/08 . Securing stoppers, e.g. swing stoppers, which are held in position by associated pressure-applying means coating with the bottle neck

1/10 . by inserting disc closures

3/00 Closing bottles, jars or similar containers by applying caps (caps per se B65D 41/00)

3/003 . . . (Pretreatment of caps, e.g. cleaning, steaming, heating or sterilizing)

3/006 . . . (Applying date marks, code marks, or the like, to caps during capping (applying marks to labels B65C 9/46))

3/02 . by applying flanged caps, e.g. crown caps, and securing by deformation of flanges

3/023 . . . (using additional means for securing the cap, e.g. adhesives)

3/026 . . . (the caps being made of thermoplastic material (B67B 3/023 takes precedence))

3/04 . . . Cutting caps from strip material in capping machines (devices for registering moving strip material B65H 23/00)

3/06 . . . Feeding caps to capping heads

3/061 . . . (the caps having an asymmetric footprint, e.g. comprising a gripping lip)

3/062 . . . from a magazine ((B67B 3/061 takes precedence))

3/064 . . . from a hopper ((B67B 3/061 takes precedence))

3/065 . . . . . (with means for orientating the caps to a position ready to be applied to the container)


3/12 . . . characterised by being movable axially relative to cap to deform flanges thereof, e.g. to press projecting flange rims inwardly

3/14 . . . characterised by having movable elements, e.g. hinged fingers, for applying radial pressure to the flange of the cap (B67B 3/16, B67B 3/18 take precedence)

3/16 . . . characterised by having resilient deforming elements, e.g. resilient sleeves or collars (B67B 3/18 takes precedence)

3/18 . . . characterised by being rotatable, e.g. for forming screw threads in situ

3/20 . . . by applying and rotating preformed threaded caps (forming threads in situ by resilient deforming means B67B 3/16, by rotary capping heads B67B 3/18)

3/2006 . . . (using manually-controlled or manually operated devices)

3/2013 . . . (by carousel-type capping machines)

3/202 . . . (using friction means for screwing the caps, e.g. belts or guides (B67B 3/2026, B67B 3/2033 take precedence))

3/2026 . . . [comprising stationary capping heads]

3/2033 . . . [comprising carousel co-rotating capping heads]

3/204 . . . (Linear-type capping machines)

3/2046 . . . (using friction means for screwing the caps, e.g. belts or wheels (B67B 3/2053 takes precedence))

3/2053 . . . (comprising capping heads)
B67B

3/206 . . . [Means for preventing rotation of the container or cap]
3/2066 . . . (Details of capping heads (B67B 3/2073 takes precedence))
3/2073 . . . [comprising torque limiting means (torque limiters in wrenches or screwdrivers B25B 23/14: couplings or clutches per se F16D)]
3/208 . . . [Electrical means responsive to the torque applied and acting on motor control means, e.g. strain gauges or power measurement means (B67B 3/2093 takes precedence)]
3/2086 . . . [Magnetic or electromagnetic clutches]
3/2093 . . . [whereby the applied torque limit is varied]
3/22 . by applying snap-on caps
3/24 . Special measures for applying and securing caps under vacuum
3/26 . Applications of control, warning, or safety devices in capping machinery
3/261 . . . [Devices for controlling the tightening of threaded caps, e.g. testing the release torque (torque testers in general G01L 5/00)]
3/262 . . . [Devices for controlling the caps]
3/264 . . . [positioning of the caps]
3/265 . . . [presence of a cap]
3/267 . . . [positioning of the cap-label]
3/268 . . . [devices for avoiding damage to the closing machine]
3/28 . Mechanisms for causing relative movement between bottle or jar and capping head

5/00 Applying protective or decorative covers to closures; Devices for securing bottle closures with wire (infant feeding teats with means for fastening to bottles A61J 11/04)
5/03 . Applying protective or decorative covers to closures, e.g. by forming in situ
5/032 . . . [Dies for securing overcaps]
5/034 . . . [the covers being elastic]
5/036 . . . [the covers being heat-shrinkable]
5/038 . . . [the covers being applied wet, whereby shrinkage occurs on drying]
5/05 . . . by applying liquids, e.g. by dipping
5/06 . Devices for securing bottle closures with wire (B67B 1/08 takes precedence)

6/00 Closing bottles, jars or similar containers by applying closure members, not provided for in groups B67B 1/00 - B67B 5/00

7/00 Hand- or power-operated devices for opening closed containers (nail pullers or extractors B25C 11/00; attached to, or incorporated in, containers or container closures (B65D 75/58, B65D 77/30))
7/02 . for removing stoppers
7/04 . . . Cork-screws
7/0405 . . . [Power-operated cork-screws, e.g. operated by an electric motor]
7/0411 . . . [without supporting means for assisting the pulling action]
7/0417 . . . [with supporting means for assisting the pulling action]
7/0423 . . . [of wine-waiter, i.e. sommelier type]
7/0429 . . . [having means for varying the effective lever arm length]
7/0435 . . . . . . [with a pantograph extracting mechanism]
7/0441 . . . . . . [whereby the supporting means abut around the whole periphery of the neck of the bottle]
7/0447 . . . . . . [whereby the supporting means abut around parts of the periphery of the neck of the bottle]
7/0452 . . . . . . [adapted to be mounted on walls]
2007/0458 . . . [Means for cutting sealing capsules]
2007/0464 . . . [Means for counting]
2007/047 . . . [Means for reducing friction]
2007/0476 . . . [by coating the screw]
2007/0482 . . . [by using roller-bearings]
2007/0488 . . . [Means for measuring temperature]
2007/0494 . . . [Means for varying the lever arm]
7/06 . Other cork removers
7/063 . . . [using one or more blades to be inserted between the cork and the inner surface of the bottle neck]
7/066 . . . [specially adapted for opening pressurised bottles, e.g. champagne or sparkling wine bottles]
7/08 . using air or gas pressure
7/10 . with means for retrieving stoppers from the interior of the container
7/12 . for removing disc-closures
7/14 . for removing tightly-fitting lids or covers, e.g. of shoe-polish tins, by gripping and rotating
7/15 . finger grapple type
7/16 . for removing flanged caps, e.g. crown caps
7/162 . . . [the removing device being formed by at least two articulated parts, e.g. pliers (B67B 7/164 takes precedence)]
7/164 . . . [Power-operated devices]
2007/166 . . . [Means for attaching the opener to fingers]
2007/168 . . . [Means for counting]
7/18 . for removing threaded caps (B67B 7/14 takes precedence; wrenches B25B 13/00)
7/182 . . . [power-operated]
7/184 . . . [by use of a flexible loop gripping the cap skirt or the container body by friction]
7/186 . . . [the loop having an adjustable length]
2007/188 . . . [Means for attaching the opener to fingers]
7/20 . for breaking vacuum seals between lids or covers and bodies of preserving jars, e.g. by wedge action
7/22 . incorporating vacuum seals between lids or covers and bodies of preserving jars, e.g. by wedge action
7/24 . [Hole-piercing devices]
7/26 . [combined with spouts]
7/28 . [and associated with receptacle hodlers]
7/30 . [Hand-operated cutting devices]
2007/303 . . . [can openers]
2007/306 . . . [Means for counting]
7/32 . . . [propelled by rotary gears or wheels around periphery of container]
7/34 . . . [with rotatable cutters]
7/36 . . . [adapted to be mounted on walls]
7/38 . [Power-operated cutting devices (machines for domestic use with a plurality of interchangeable units A47J 43/06, A47J 44/00)]
7/385 . . . [specially adapted to be hand-held]
7/40 . Devices for engaging tags, strips, or tongues for opening by tearing, e.g. slotted keys for opening sardine tins
Devices for removing barrel bungs

Combination tools, e.g. comprising cork-screws, can piercers, crowncap removers (combinations of opening devices with cutting tools B26; with devices serving other purposes, see appropriate subclasses, e.g. B25F; B43K 29/00)

by breaking, e.g. for ampoules

Indexing codes relating to constructional features of closing machines

Orienting closure means

Stoppers

Cylindrical stoppers

Caps

applying two closures on a container

Details of cap feeding devices

Use of magnets

Aseptic features

Quick or easy connection means for connecting a capping head to a spindle

Details related to spray caps, i.e. caps comprising a pump and a tube for dispensing content from a container