

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](#))

Definition statement

This place covers:

Closing bottles or jars by applying:

- Stoppers;
- caps
- protective or decorative covers to closures;
- wire to secure bottle closures;

Devices for opening closed containers being hand- or power operated.

Apparatuses for applying closures and/or covers (of closures) to gas bottles.

References

Limiting references

This place does not cover:

Opening or closing test tubes in laboratory (see e.g. SA850578)	G01N 35/00 , G01N 2035/0405
Devices for transferring samples to, in, or from, the analysis apparatus with means for piercing stoppers or septums	G01N 35/1079

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices for breaking closed containers	B01F 35/713 , A61J 1/2089
Manufacturing of bottle cork safety cages or muzzles	B21F 45/04 .
Apparatus for cutting in general	B26F 1/00 .
Applying plugs or threadless stoppers	B65B 7/2821
Inserting and rotating screw stoppers	B65B 7/2828
Details related to the filling gas bottles	F17C 13/00

B67B 1/00

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

Definition statement

This place covers:

Feeding stoppers.

Pretreatment of stoppers.

Definition statement

Inserting threadless stoppers.

Inserting and rotating screw stoppers.

Securing stoppers.

Inserting disc closures.

References**Limiting references***This place does not cover:*

Mechanical details	B67B 1/03
Chemical details related to treatment of cork	B27K 7/00

Informative references*Attention is drawn to the following places, which may be of interest for search:*

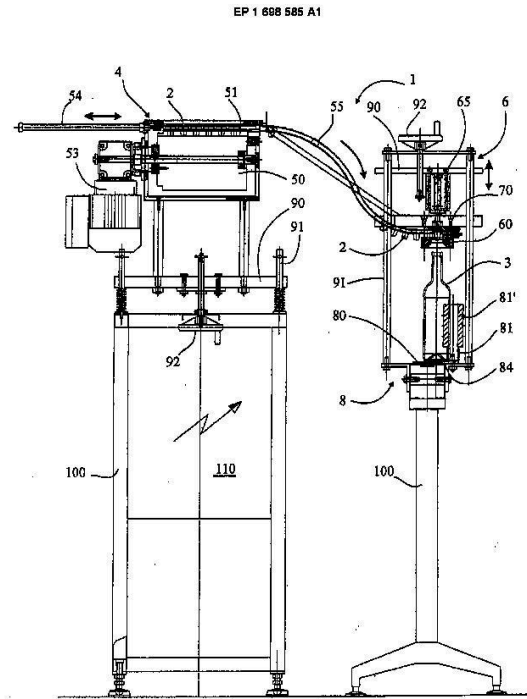
Applying plugs or threadless stoppers	B65B 7/2821
Closing containers other than bottle- or jar-type containers	B65B 7/2821 , B65B 7/2828 , B65B 7/2835
Inserting and rotating screw stoppers	B65B 7/2828
Orienting and/or conveying of caps in general	B65G 47/14
Opening or closing test tubes in laboratory (see e.g. SA850578)	G01N 35/00

B67B 1/005

{Feeding stoppers (in general **B65G**)}

Definition statement

This place covers:



Illustrative example of subject matter classified in this

FIG. 1

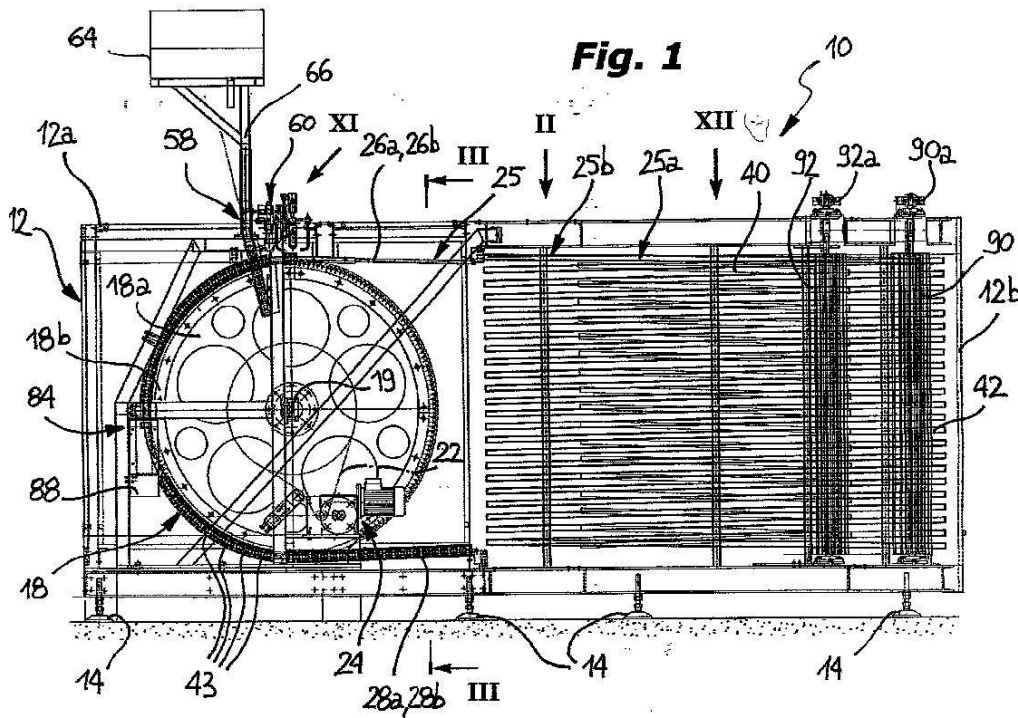
B67B 1/03

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

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



VVO 2006/050855
 1/9
 PCT/EP2005/011803

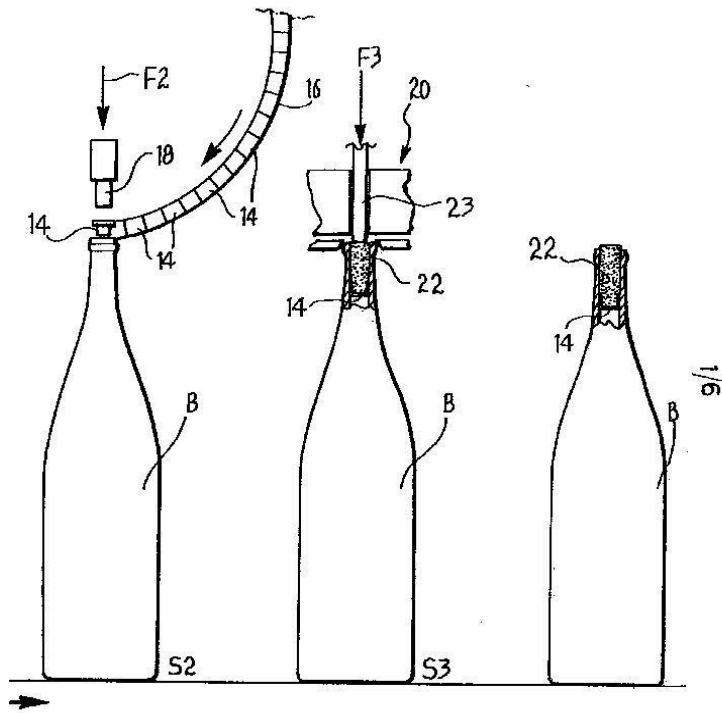
B67B 1/04

by inserting threadless stoppers, e.g. corks

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



W/O 00/73200

PCT/IB00/00735

JNGEN SEITE 2

Nummer: DE 190 37 011 A1
 Inv. Cl. 2: B 07B 1/00
 Offenlegungstag: 15. Februar 2001

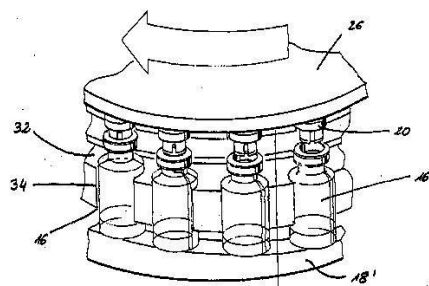


FIG. 3

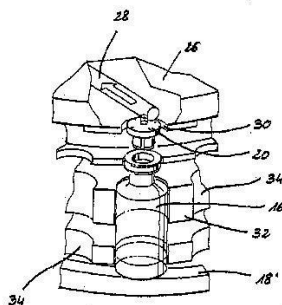


FIG. 4

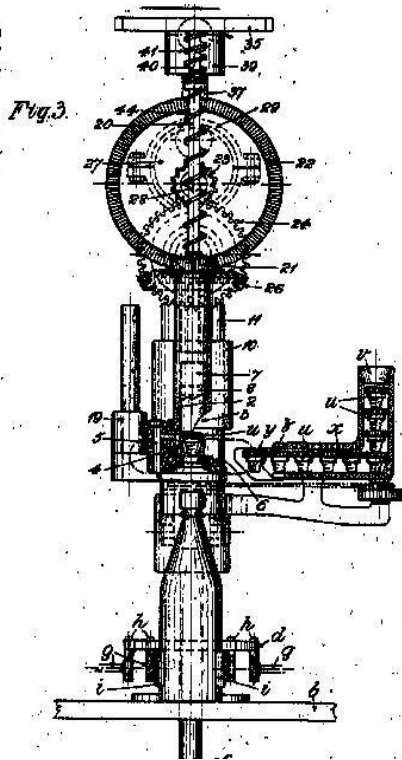
B67B 1/06

by inserting and rotating screw stoppers

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



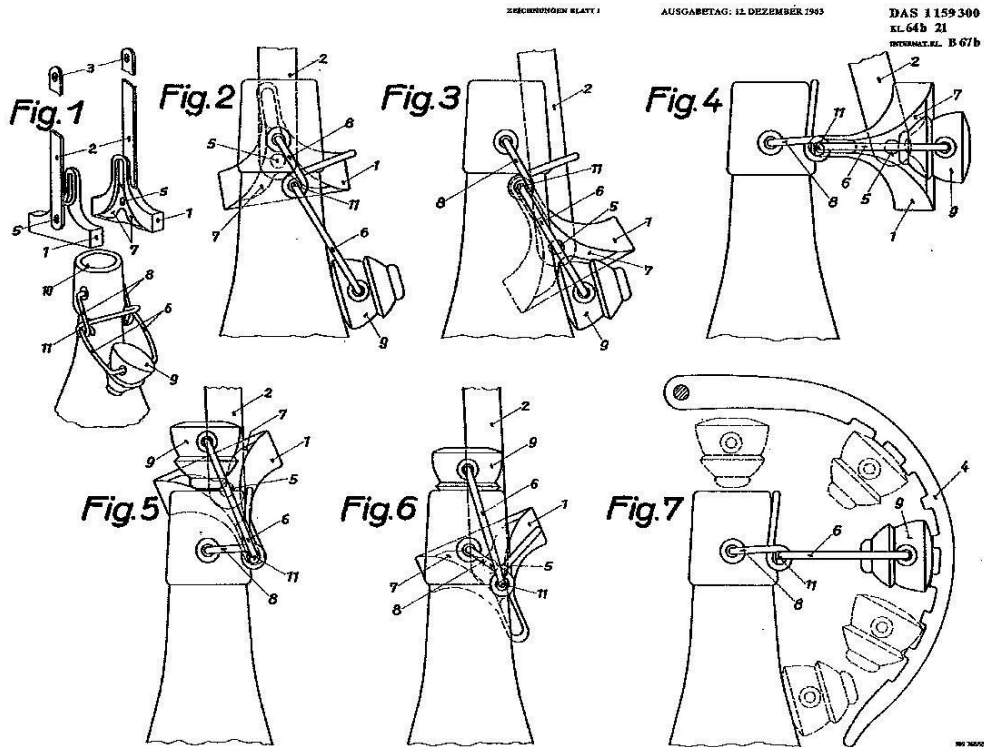
B67B 1/08

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

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



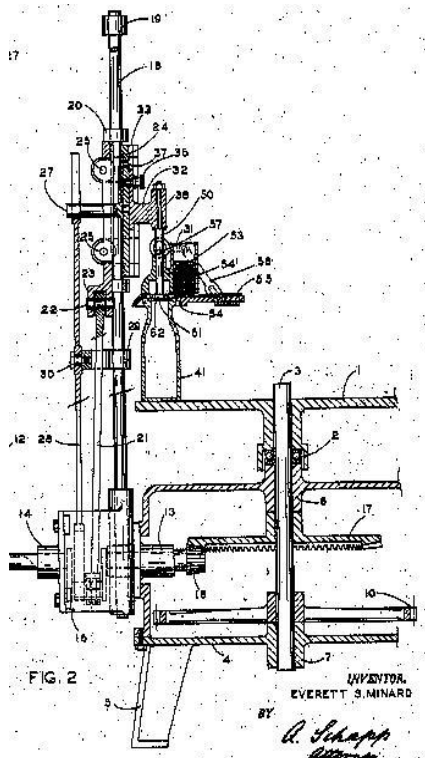
B67B 1/10

by inserting disc closures

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**B67B 3/00**

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

Definition statement

This place covers:

Pretreatment of caps.

Applying marks to caps.

Applying:

- Flanged caps, e.g. crown corks, by deformation of flanges;
- preformed threaded caps;
- snap-on caps.

Means for applying caps under vacuum Applications of control, warning and safety in capping machinery.

References

Limiting references

This place does not cover:

Making closures, e.g. crown caps, screw caps	B21D 51/44
--	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Inserting and rotating preformed threaded caps	B65B 7/2835
Opening or closing test tubes in laboratory (see e.g. SA850578)	G01N 35/00 , G01N 2035/0405

B67B 3/003

{Pretreatment of caps, e.g. cleaning, steaming, heating or sterilizing}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

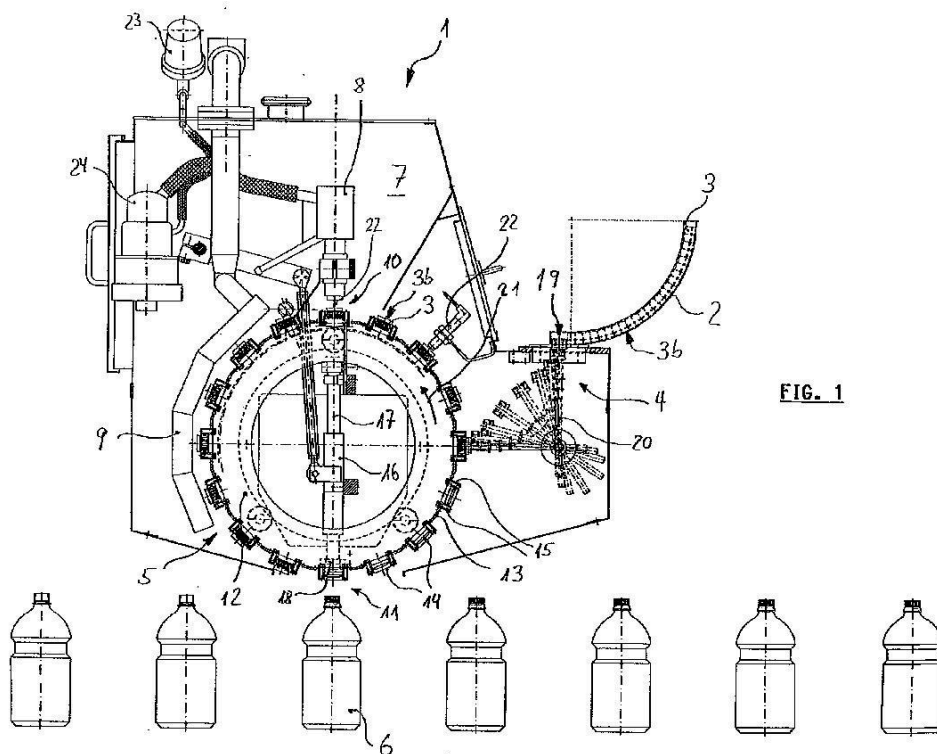


FIG. 1

ZEICHNUNGEN SEITE 1

Nummer:
Int. Cl.⁸:
Offenlegungstag:

DE 197 27 942 A1
B 67 B 3/00
7. Januar 1999

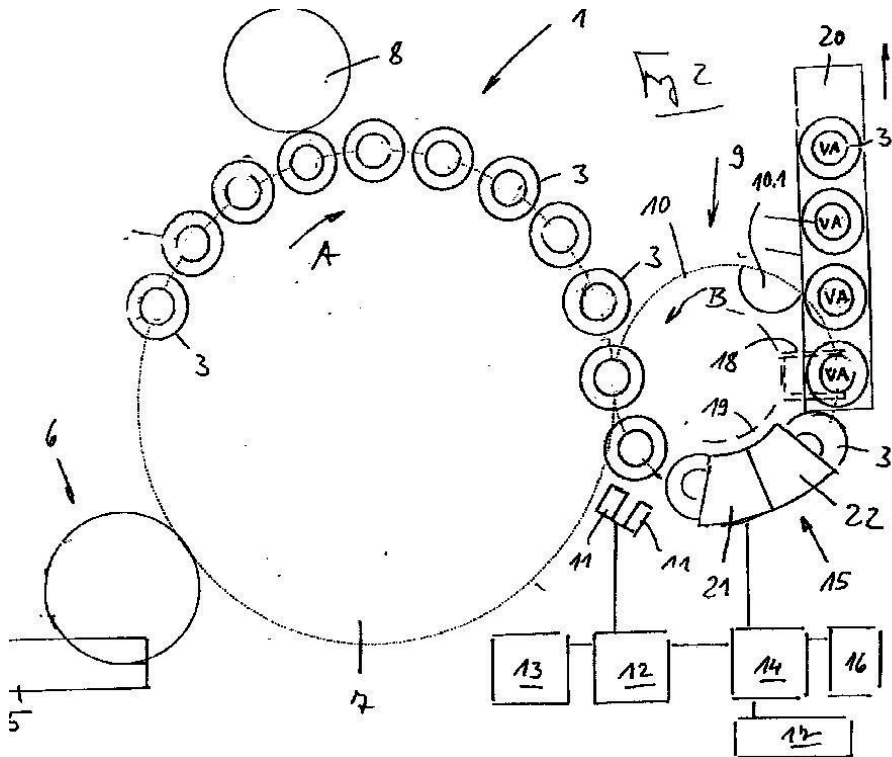
B67B 3/006

{Applying date marks, code marks, or the like, to caps during capping (applying marks to labels [B65C 9/46](#))}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



DE 10 2006 019 441 A1 2007.10.25

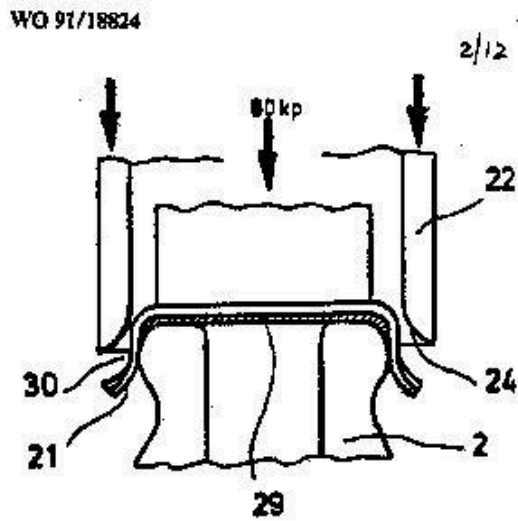
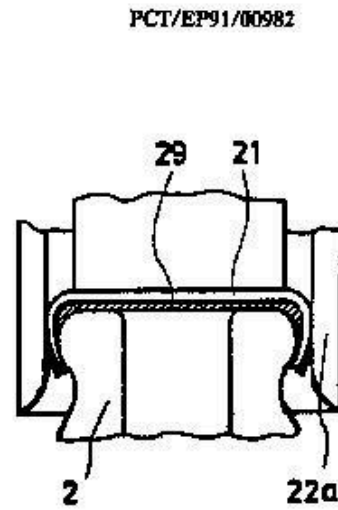
B67B 3/02

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

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**FIG. 5****FIG. 6**

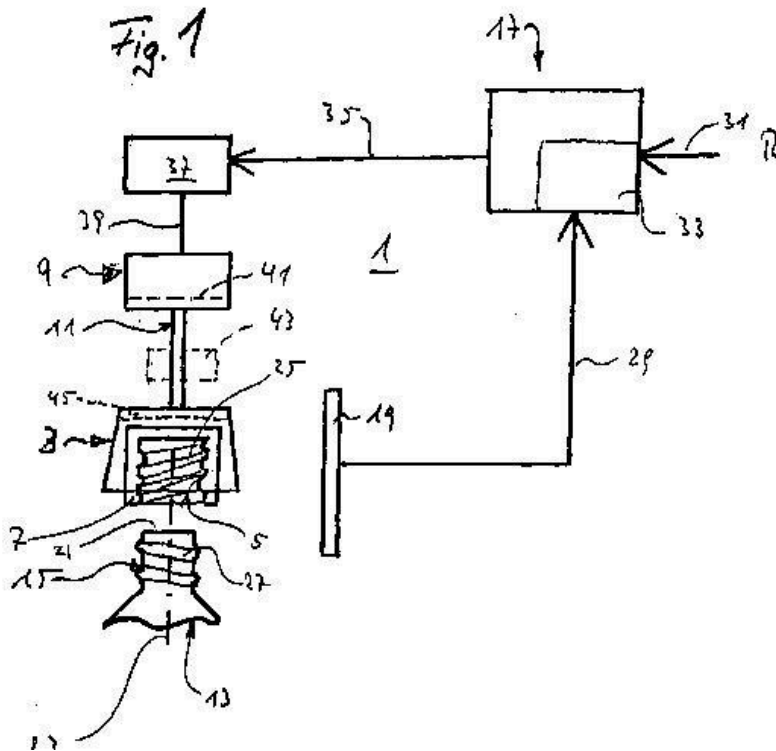
B67B 3/20

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](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



B67B 3/2006

{using manually-controlled or manually operated devices}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

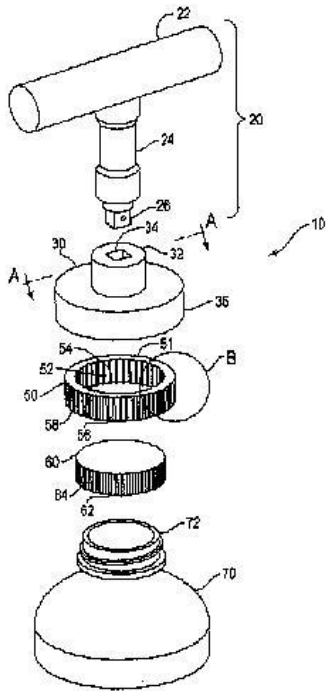


FIG. 1

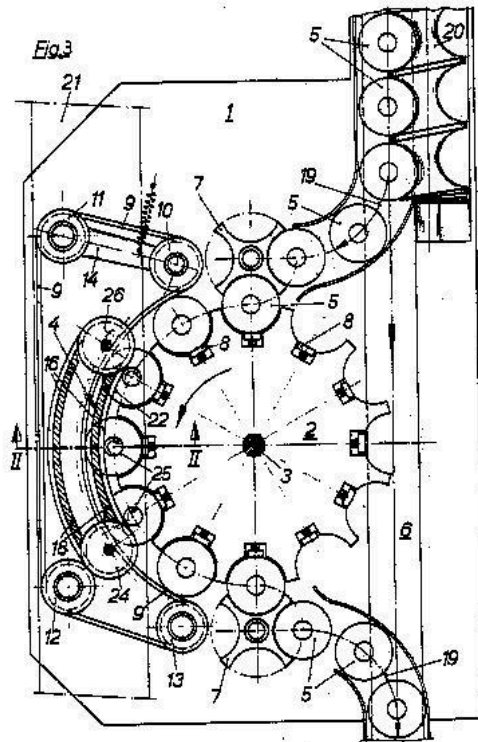
B67B 3/202

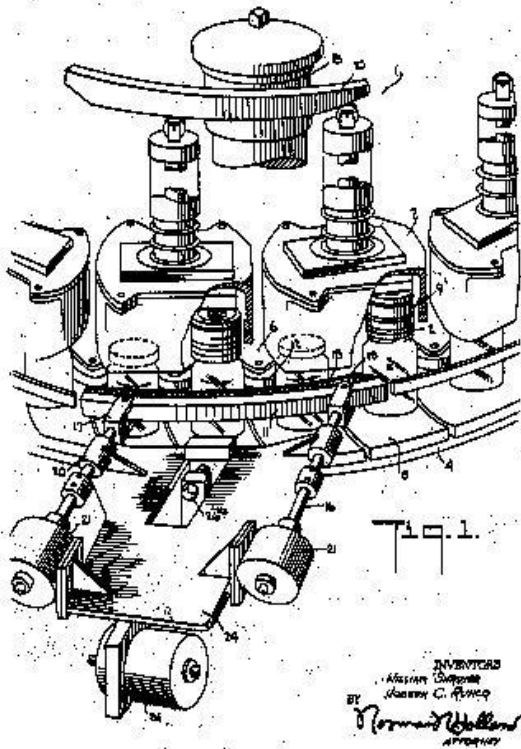
{using friction means for screwing the caps, e.g. belts or guides ([B67B 3/2026](#), [B67B 3/2033](#) take precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.





B67B 3/2026

{comprising stationary capping heads}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

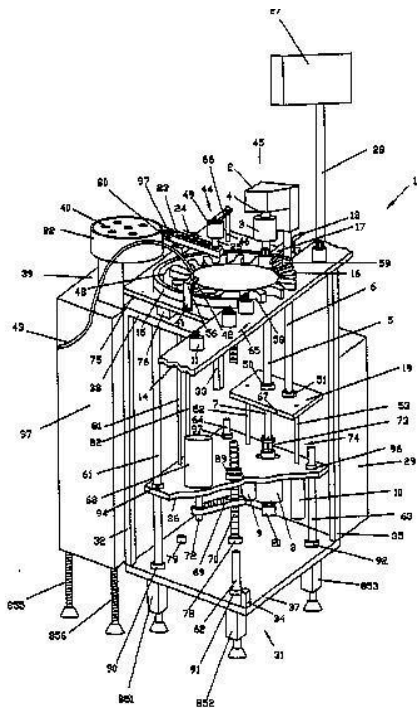


FIG. 1

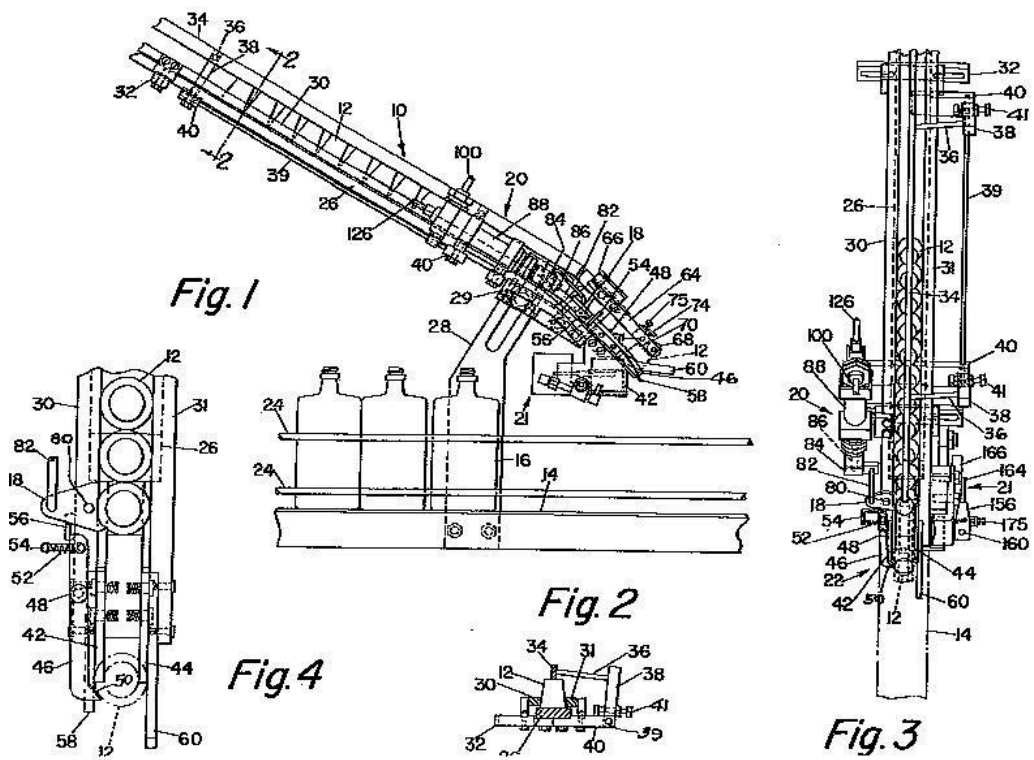
B67B 3/204

{Linear-type capping machines}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



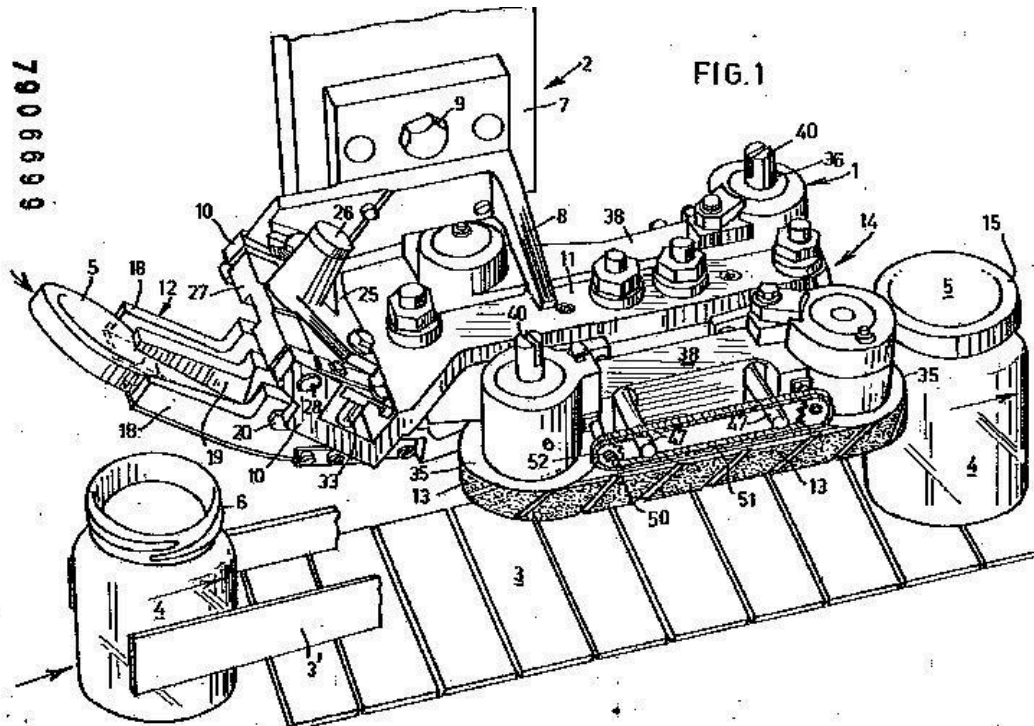
B67B 3/2046

{using friction means for screwing the caps, e.g. belts or wheels ([B67B 3/2053](#) takes precedence)}

Definition statement

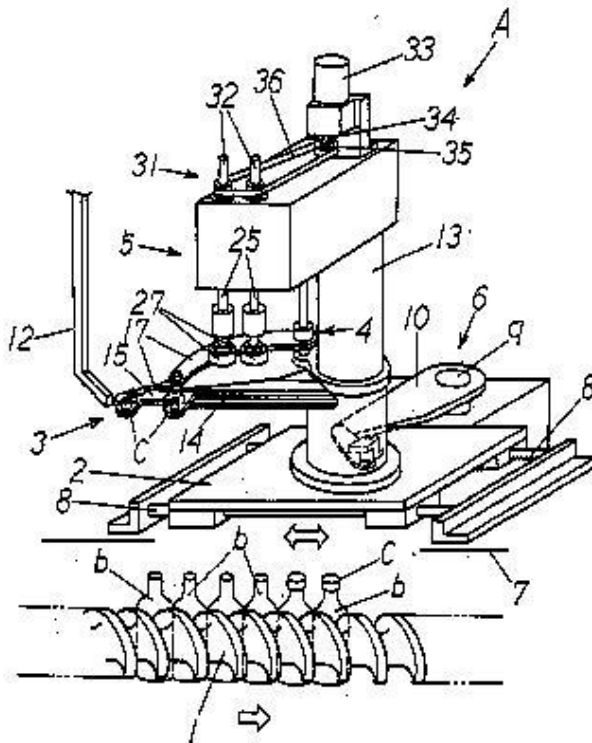
This place covers:

Illustrative example of subject matter classified in this group.



B67B 3/2053**{comprising capping heads}****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.



B67B 3/206

{Means for preventing rotation of the container or cap}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

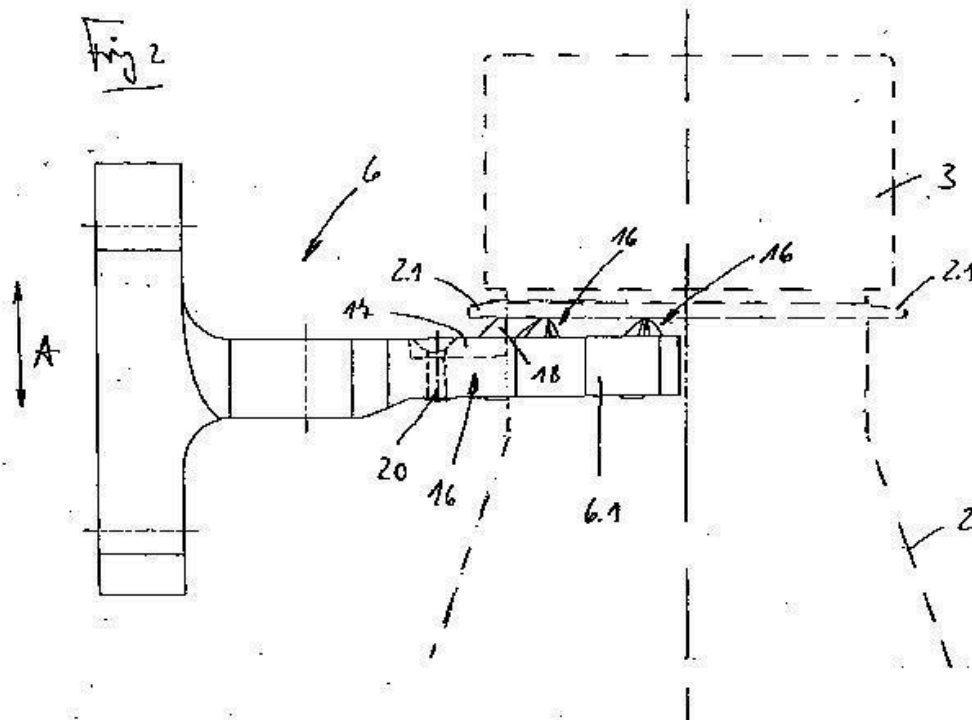
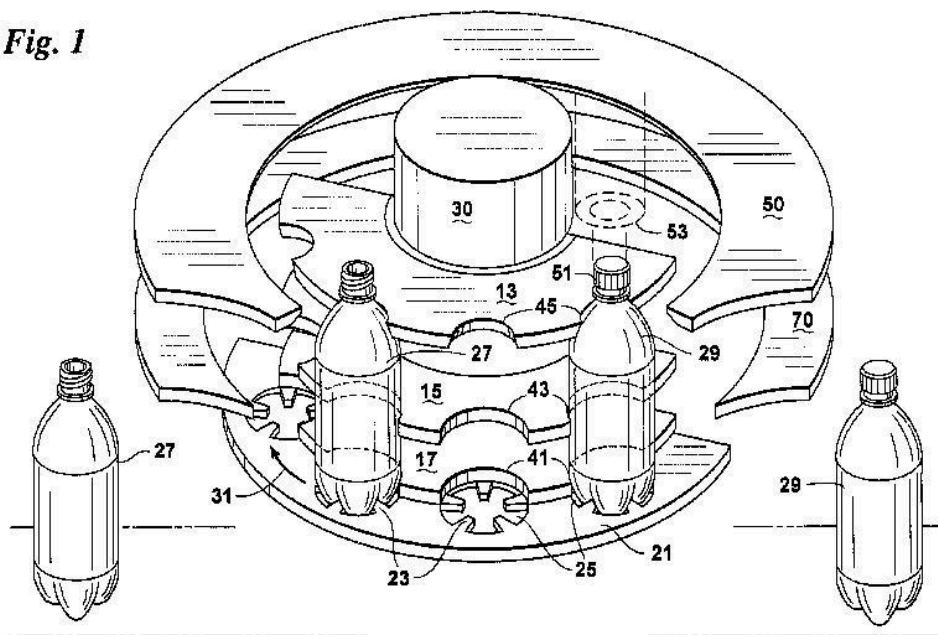


Fig. 1



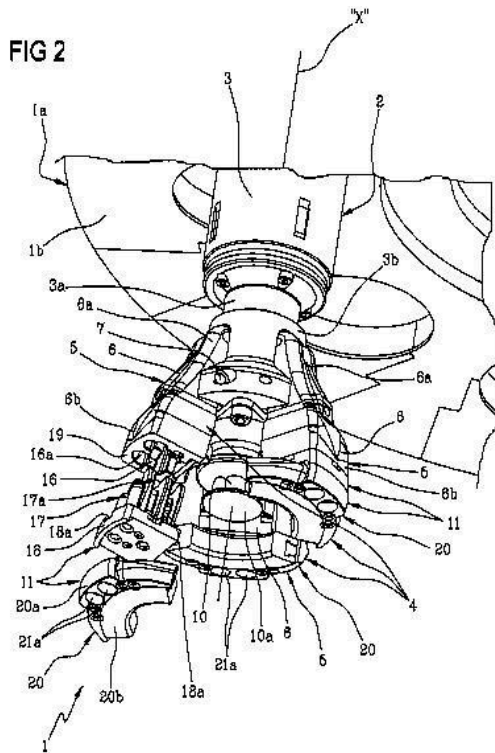
B67B 3/2066

{Details of capping heads (B67B 3/2073 takes precedence)}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



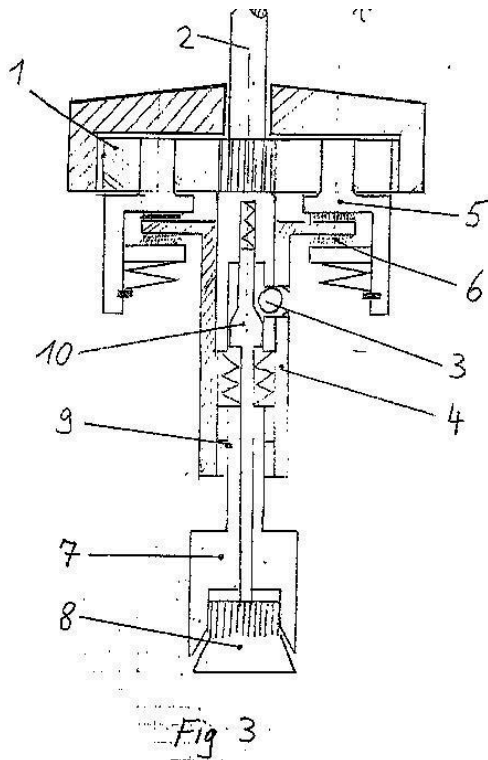
B67B 3/2073

{comprising torque limiting means (torque limiters in wrenches or screwdrivers [B25B 23/14](#); couplings or clutches per se [F16D](#))}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Permanent magnetic clutches	H02K 49/10
-----------------------------	----------------------------

B67B 3/22

by applying snap-on caps

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

U.S. Patent Sep. 20, 1988 Sheet 2 of 2 **4,771,903**

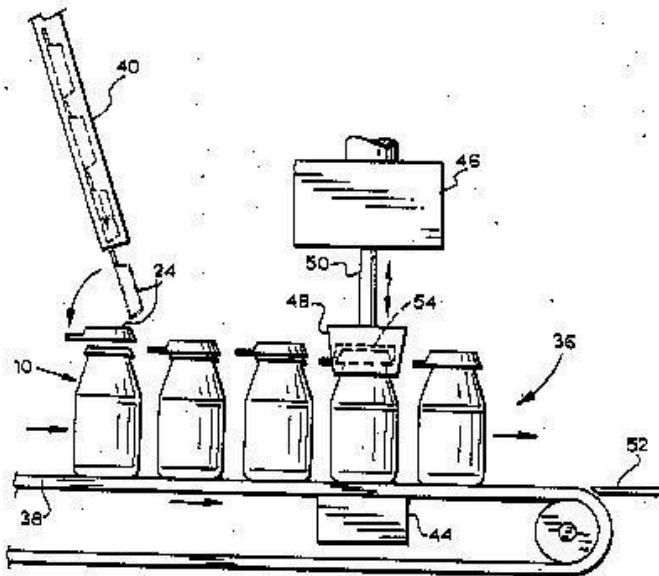
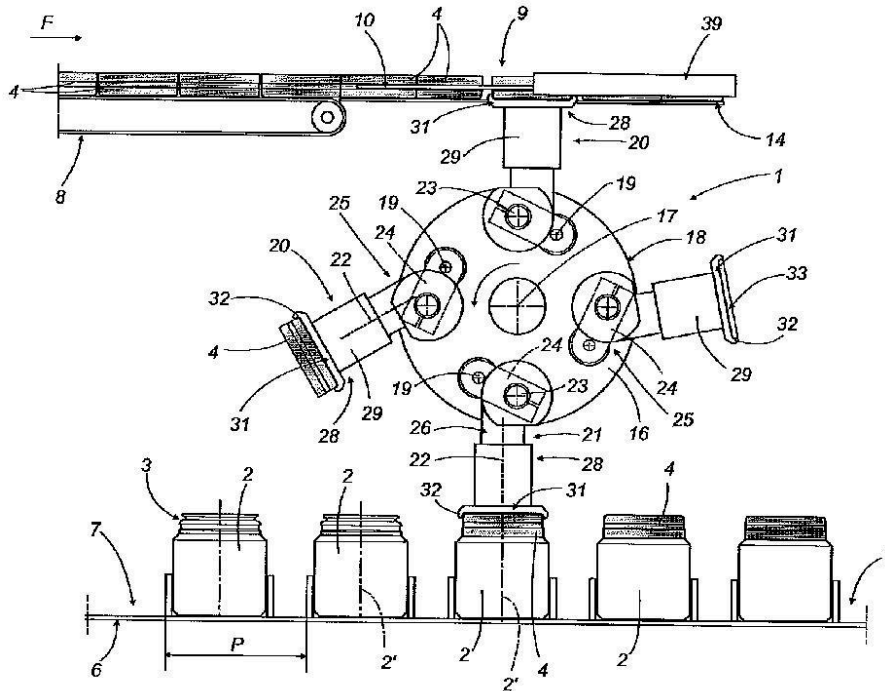


FIG. 3



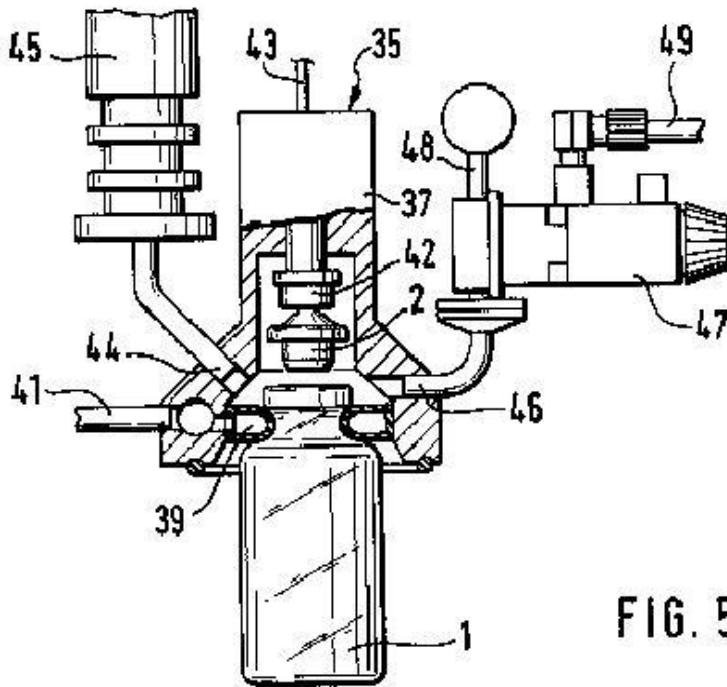
B67B 3/24

Special measures for applying and securing caps under vacuum

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



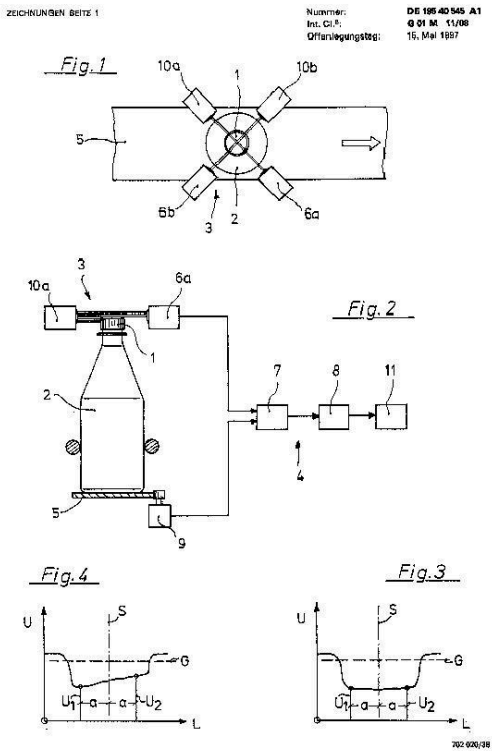
B67B 3/26

Applications of control, warning, or safety devices in capping machinery

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



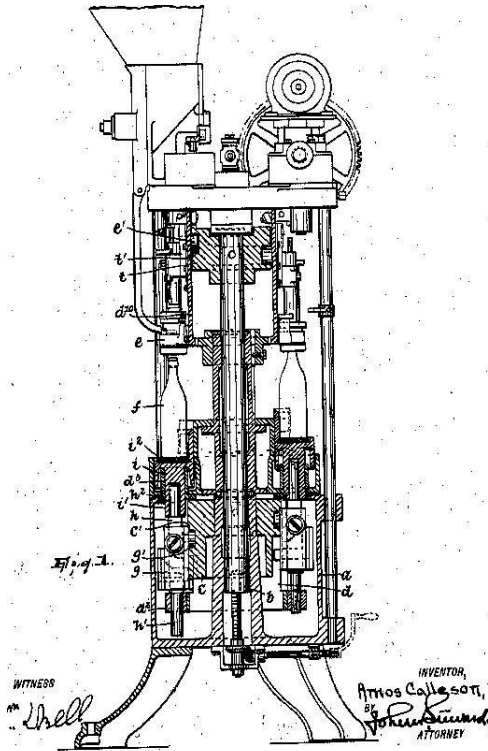
B67B 3/28

Mechanisms for causing relative movement between bottle or jar and capping head

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**B67B 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](#))

Definition statement

This place covers:

Applying protective or decorative covers to closures.

Securing bottle closures with wire.

References**Limiting references**

This place does not cover:

Manufacturing of bottle cork safety cages or muzzles	B21F 45/04
--	----------------------------

B67B 5/03

Applying protective or decorative covers to closures, e.g. by forming in situ

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

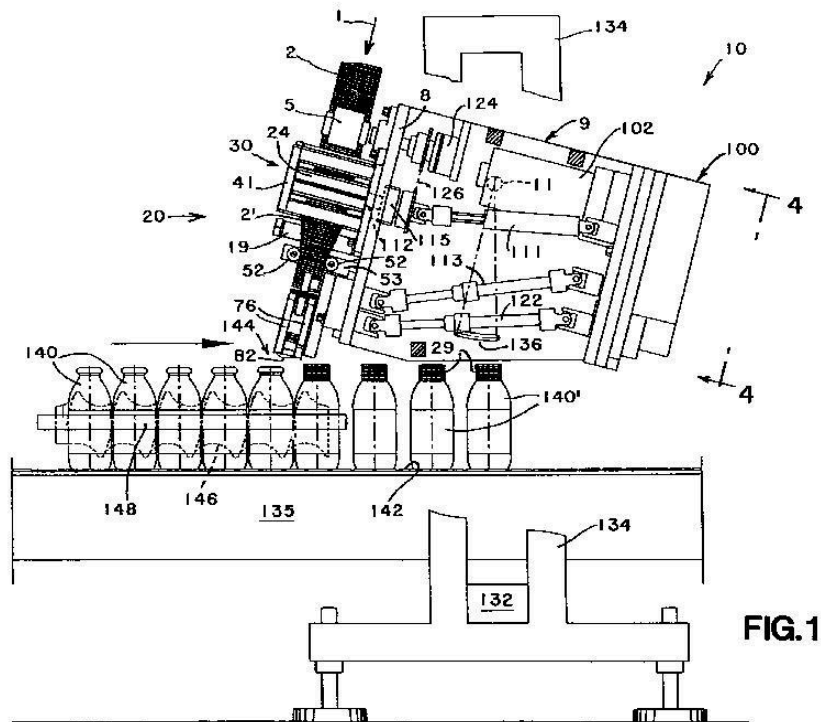


FIG. 1

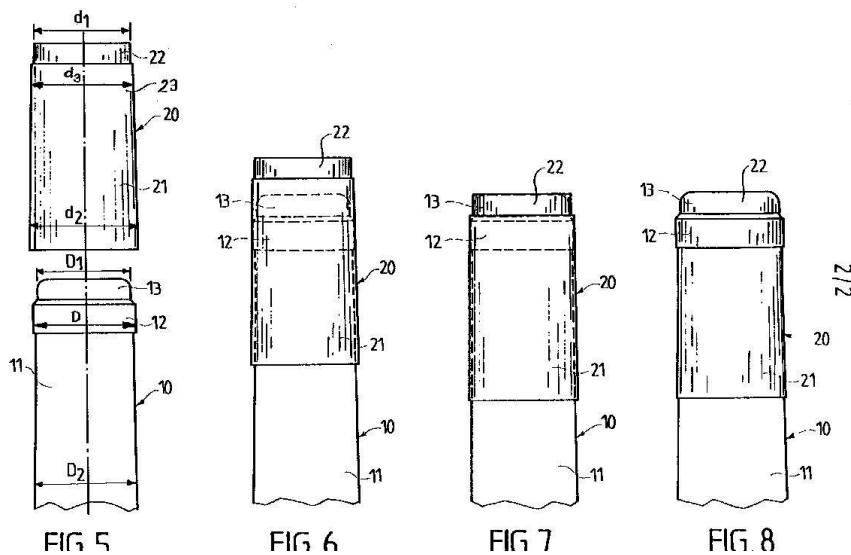


FIG 5

FIG 6

FIG 7

FIG 8

NO 93/11064

2/2

PCT/FR92/01158

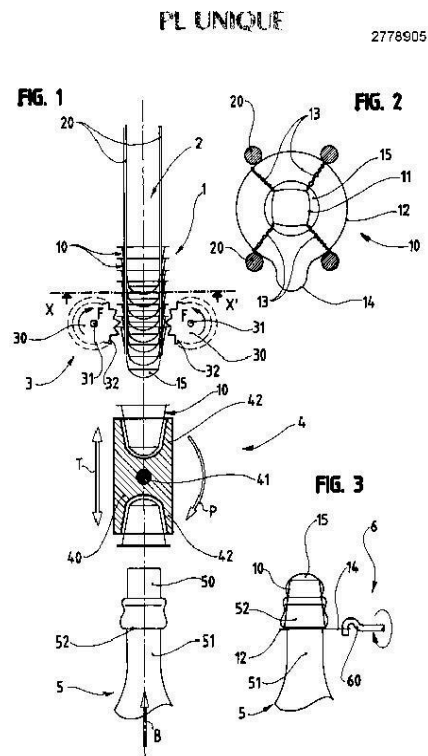
B67B 5/06

Devices for securing bottle closures with wire ([B67B 1/08](#) takes precedence)

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**B67B 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](#)})

Definition statement

This place covers:

Devices for removing:

- Stoppers;
- disc-closures;
- tightly fitting lids or covers;
- threaded caps;
- vacuum seals.

Devices for piercing holes in closed containers

Device for cutting open closed containers operated by hand

Device for cutting open closed containers power operated

Devices for engaging elements for opening closed containers by tearing

Definition statement

Devices for removing barrel bungs

Combination tools for opening several different closed containers

Devices for opening closed containers by means of breaking.

References**Limiting references***This place does not cover:*

Nail pullers or extractors	B25C 11/00
Devices attached to, or incorporated in, containers or container closures	B65D 75/58 , B65D 77/30

Informative references*Attention is drawn to the following places, which may be of interest for search:*

Devices for breaking closed containers, see also	B01F 35/713 , A61J 1/2089
Apparatus for cutting in general:	B26F 1/00 .
Devices for expelling or dispensing solid content, e.g. pills, from blister packs	B65B 69/0058

Special rules of classificationGroups [B67B 7/24](#) - [B67B 7/92](#) are based on IPC3.

B67B 7/02

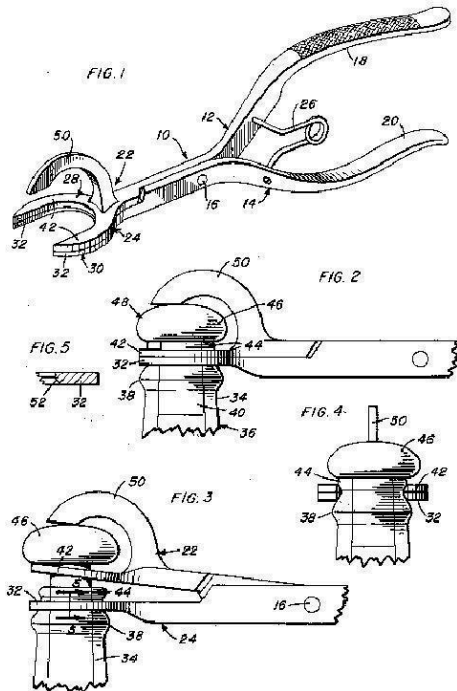
for removing stoppers

Definition statement

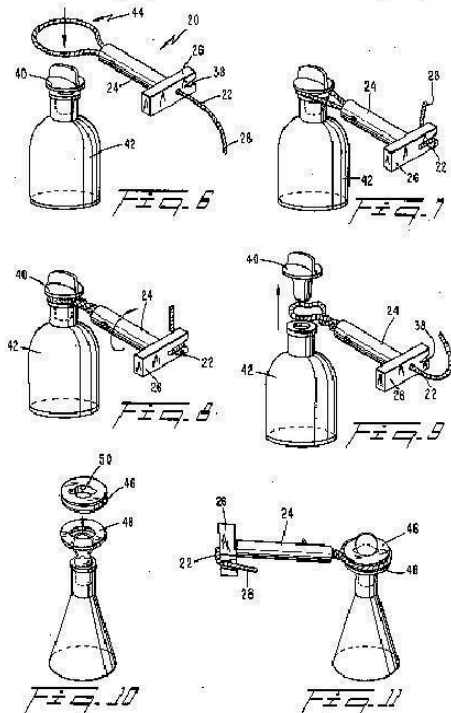
This place covers:

Illustrative example of subject matter classified in this group.

U.S. Patent April 19, 1977 4,018,110



U.S. Patent Aug. 6, 1985 Sheet 2 of 2 4,532,831



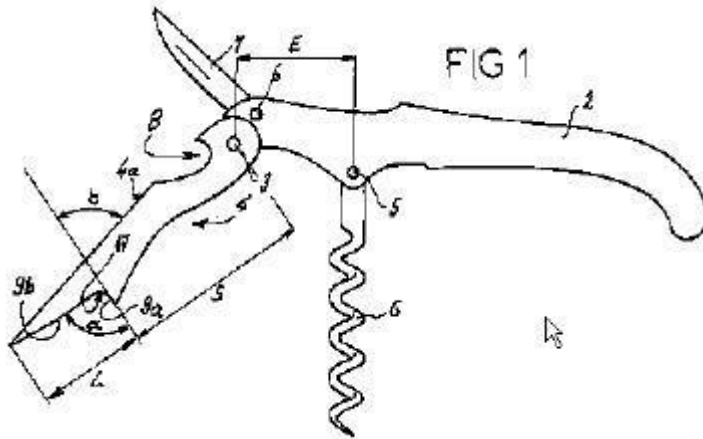
B67B 7/0423

{of wine-waiter, i.e. sommelier type}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



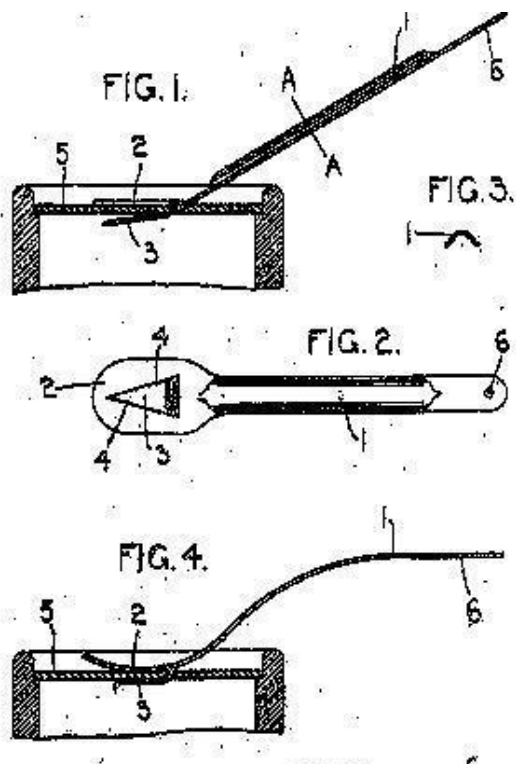
B67B 7/12

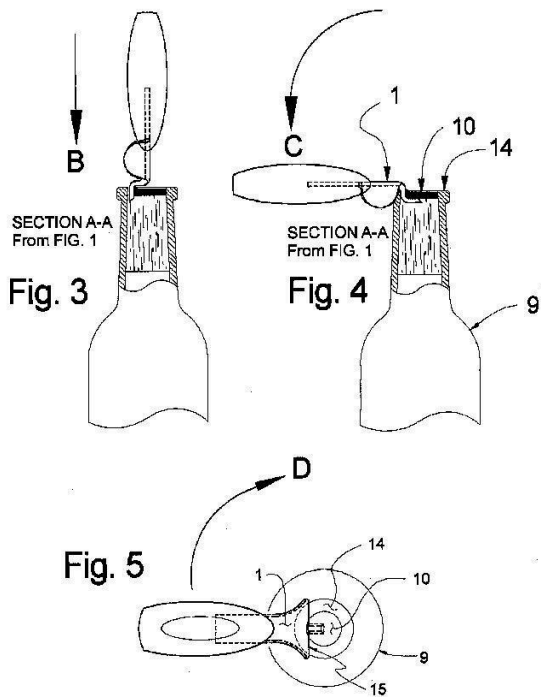
for removing disc-closures

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.





References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Needs to be cleaned in combination with	B67B 7/14
---	---------------------------

B67B 7/14

for removing tightly-fitting lids or covers, e.g. of shoe-polish tins, by gripping and rotating

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

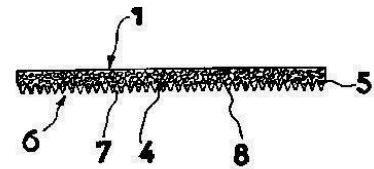


Fig. 1

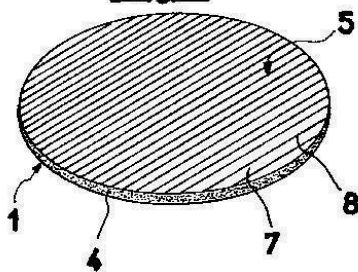


Fig. 2

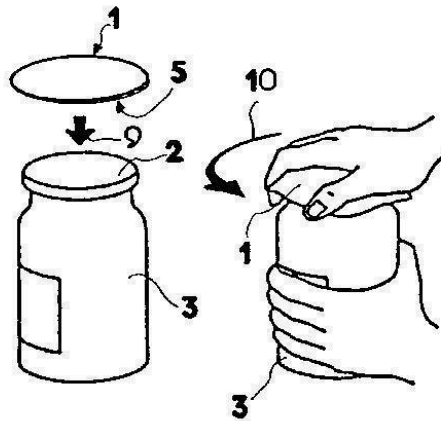
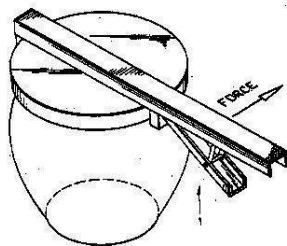


Fig. 3

Fig. 4

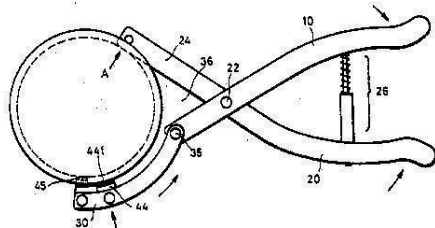
U.S. Patent July 16, 1991 Sheet 1 of 3 5,031,485

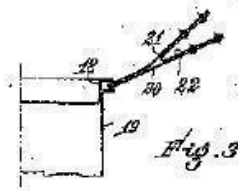
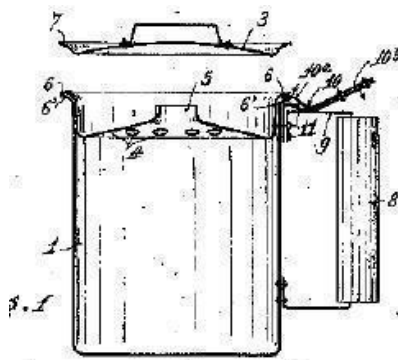
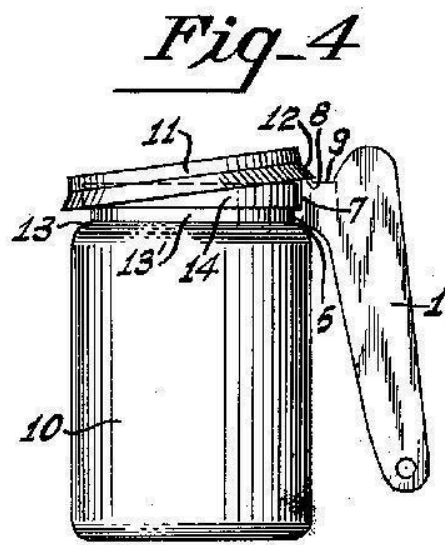
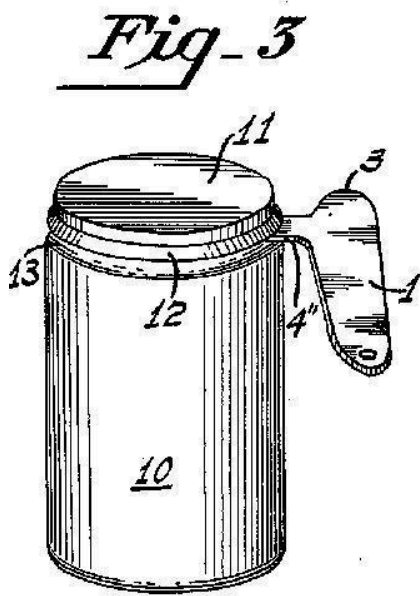
FIG 1



PRIOR ART

FIG 4





References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Needs to be cleaned in combination with	B67B 7/12
---	---------------------------

B67B 7/16

for removing flanged caps, e.g. crown caps

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

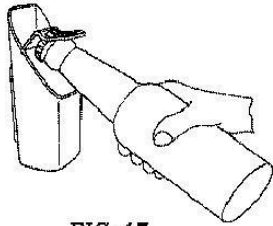


FIG. 17

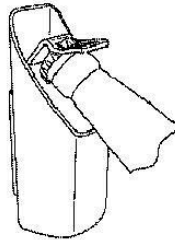


FIG. 18

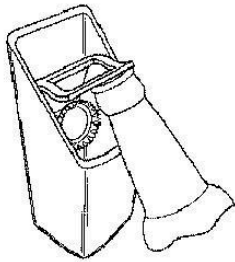


FIG. 19

B67B 7/18

for removing threaded caps ([B67B 7/14](#) takes precedence; wrenches [B25B 13/00](#))

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

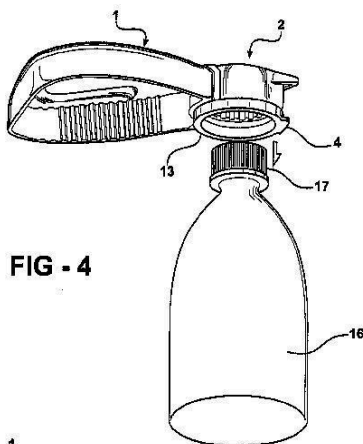
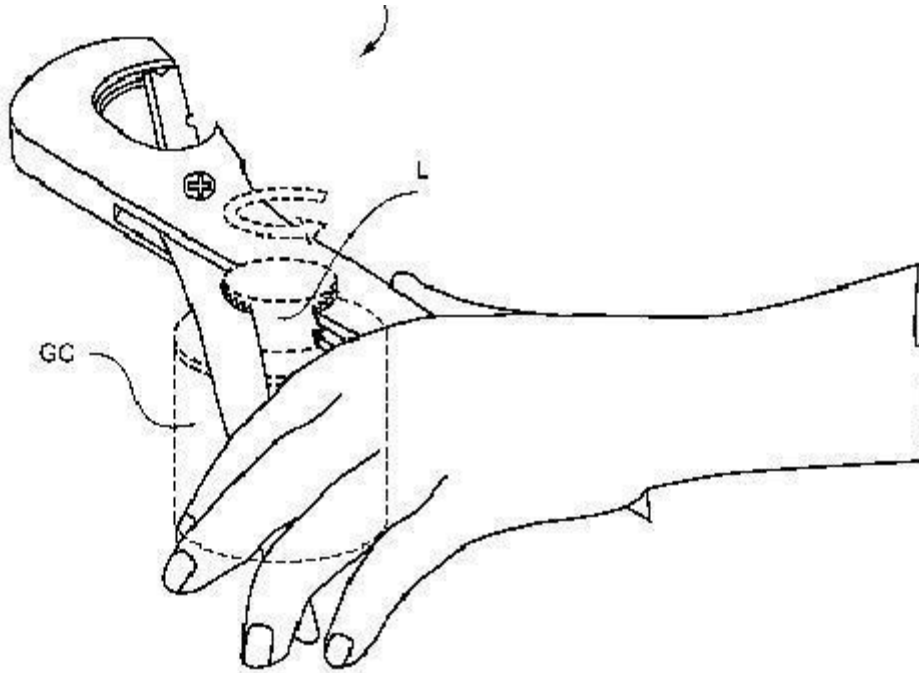


FIG - 4

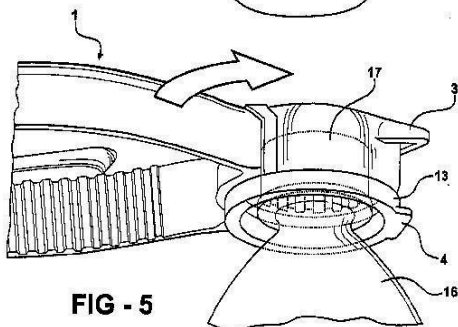


FIG - 5

B67B 7/20

for breaking vacuum seals between lids or covers and bodies of preserving jars, e.g. by wedge action

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

U.S. Patent Mar. 22, 2011 Sheet 1 of 6 US 7,908,942 B1

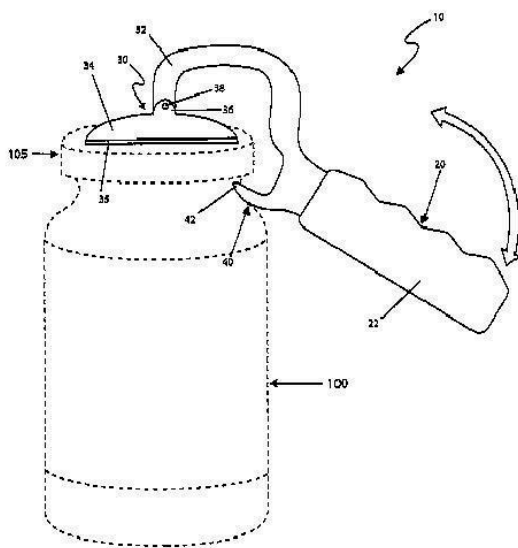
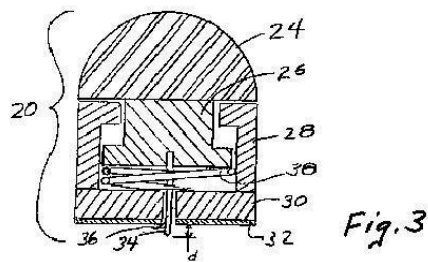
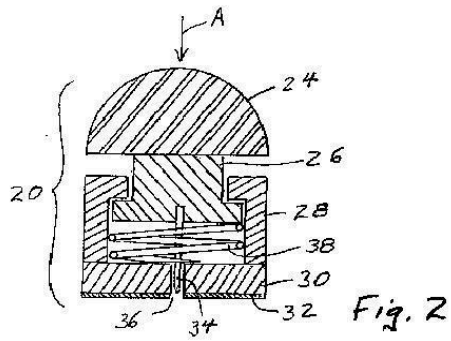


Fig. 1

Parent Application Publication Oct. 26, 2006 Sheet 2 of 2 US 2006/023652 A1



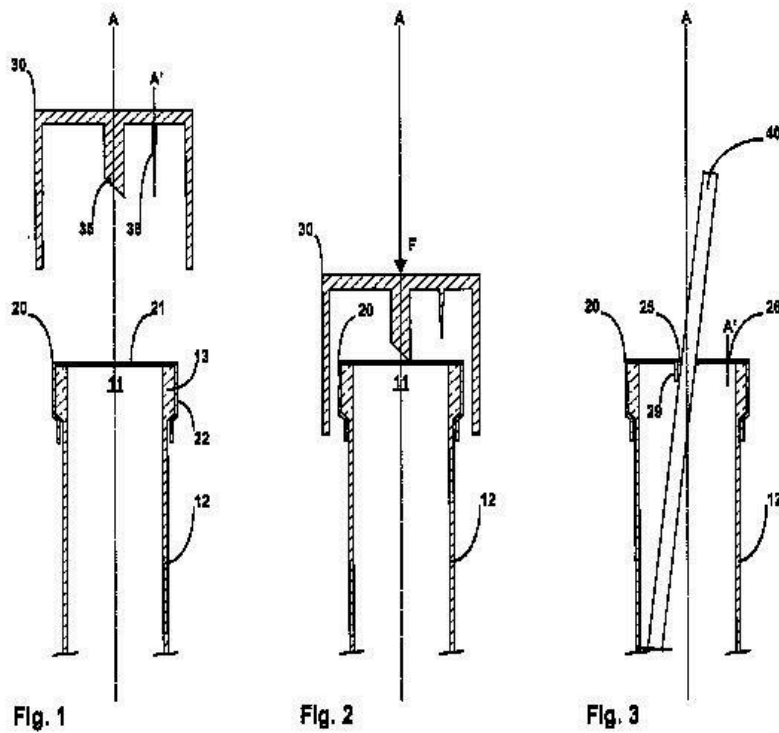
B67B 7/24

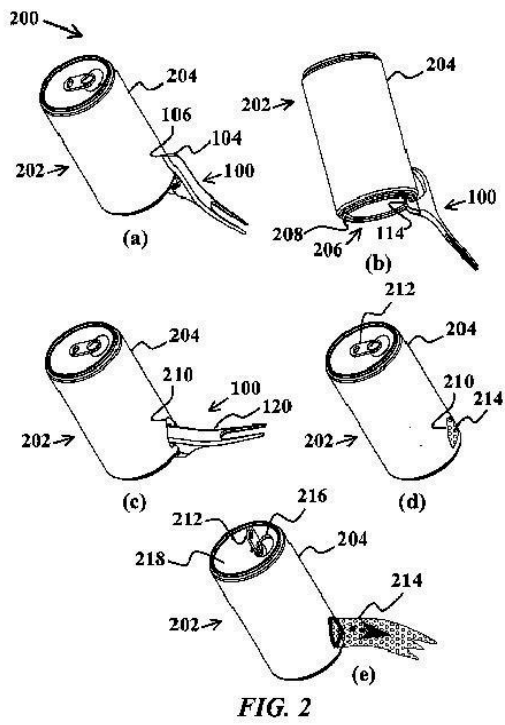
{Hole-piercing devices}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.





References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices for transferring samples to, in, or from, the analysis apparatus with means for piercing stoppers or septums	G01N 35/1079
--	------------------------------

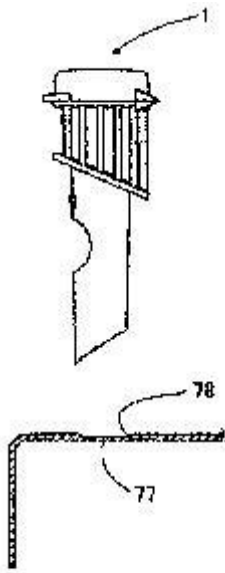
B67B 7/26

{combined with spouts}

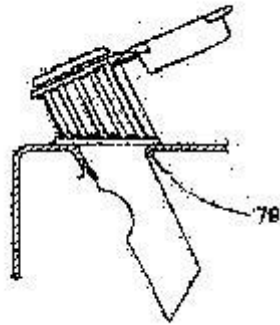
Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



(a)



(b)

B67B 7/28

{and associated with receptacle holders}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

EP 2 219 287 A1

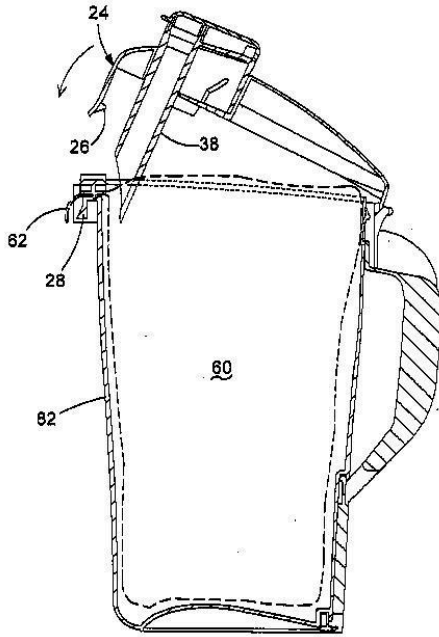


FIG. 6

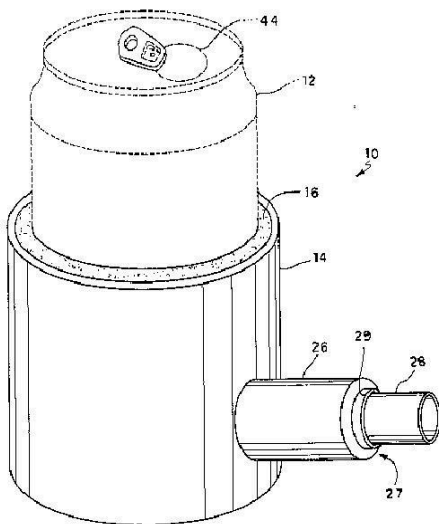


Fig. 1

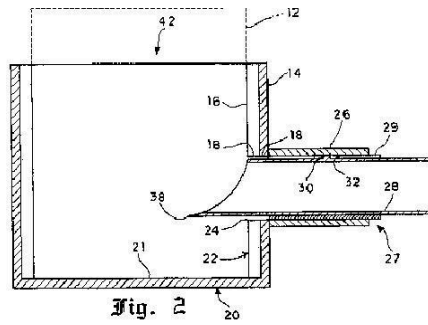


Fig. 2

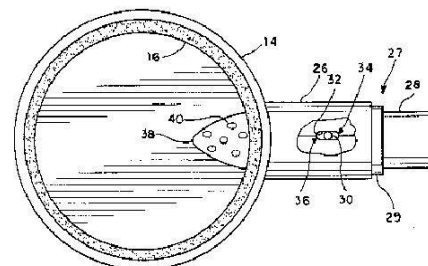


Fig. 3

B67B 7/30

{Hand-operated cutting devices}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

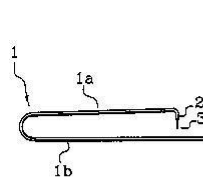
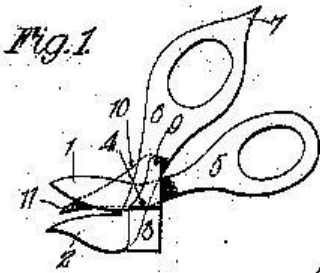


Fig. 1

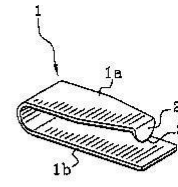


Fig. 2

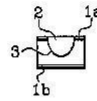


Fig. 3

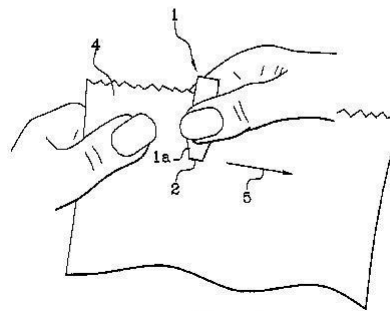
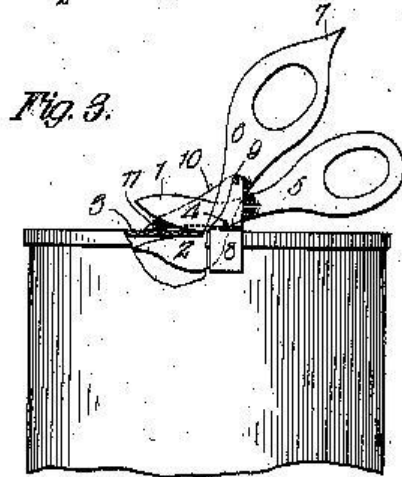


Fig. 4

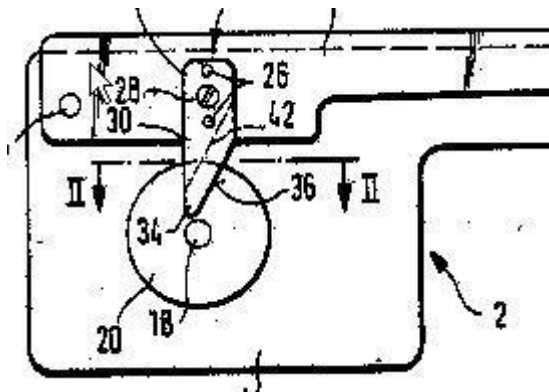
B67B 7/32

{propelled by rotary gears or wheels around periphery of container}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



Special rules of classification

The cutter MUST be rigidly fixed to the tool.

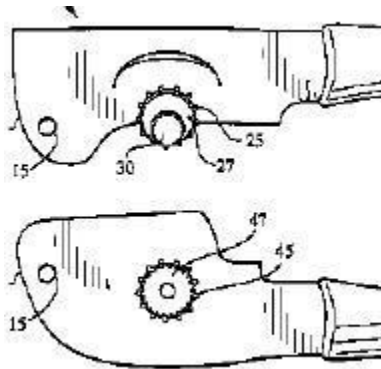
B67B 7/34

{with rotatable cutters}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

**Special rules of classification**

The cutter wheel MUST rotate.

B67B 7/36

{adapted to be mounted on walls}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

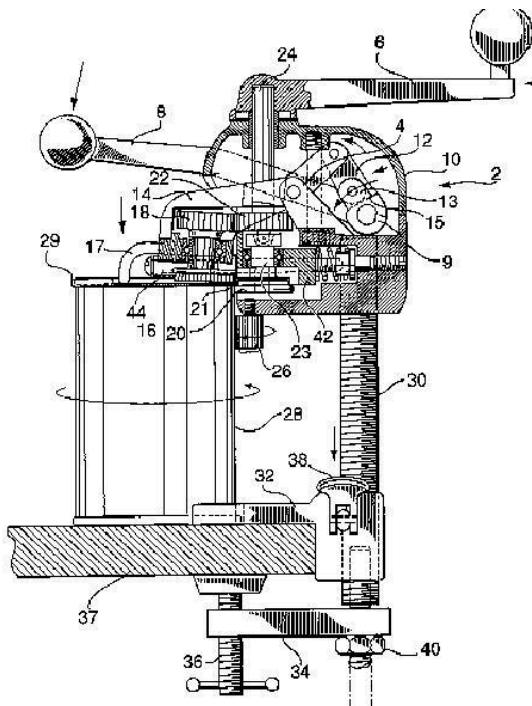
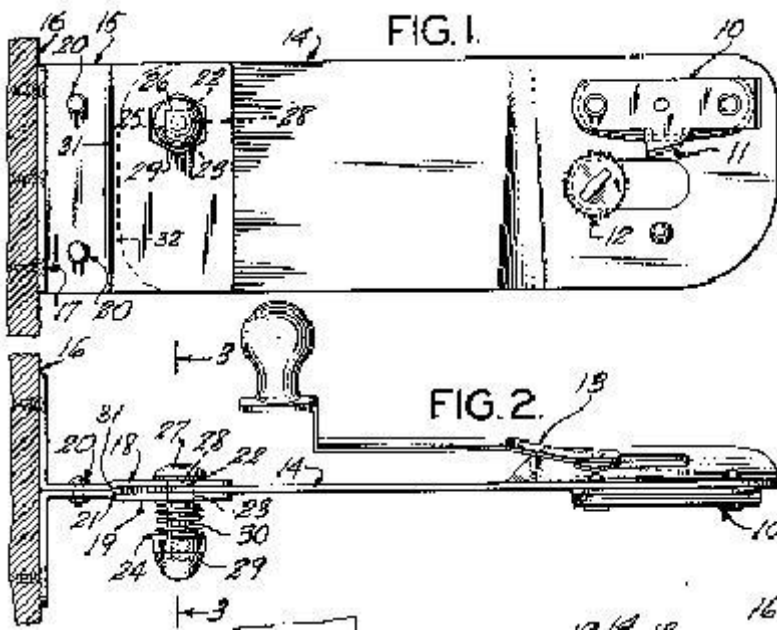


FIG. 2

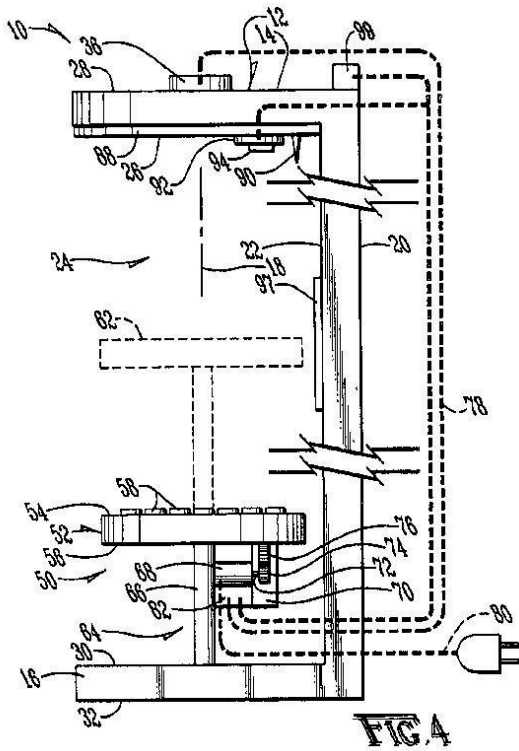
B67B 7/38

{Power-operated cutting devices (machines for domestic use with a plurality of interchangeable units [A47J 43/06](#), [A47J 44/00](#))}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



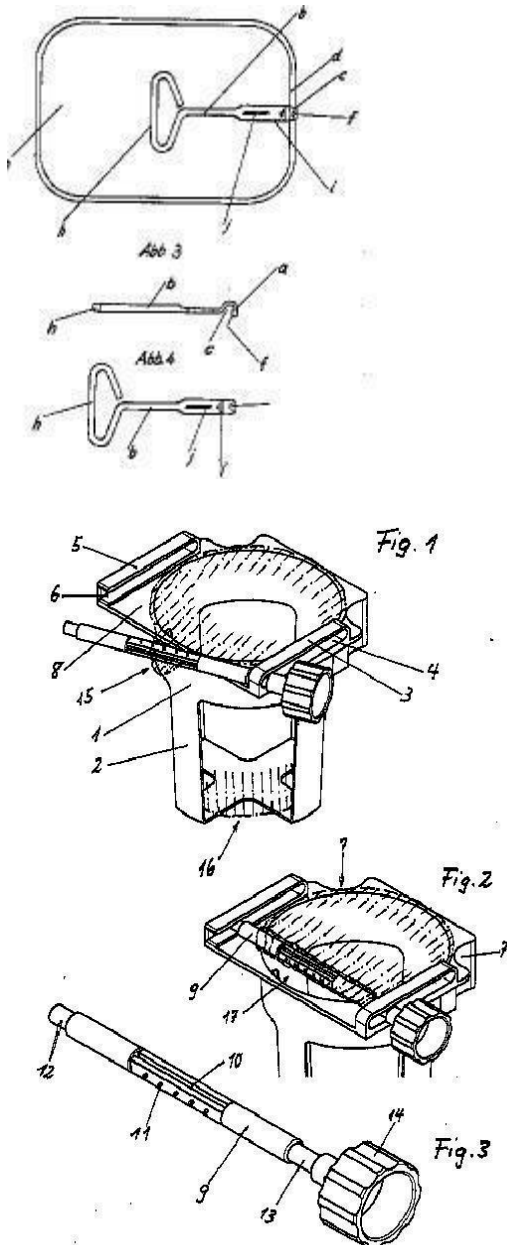
B67B 7/40

Devices for engaging tags, strips, or tongues for opening by tearing, e.g. slotted keys for opening sardine tins

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



B67B 7/403

{adapted for engaging the ring of a pull tab for opening an aperture}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

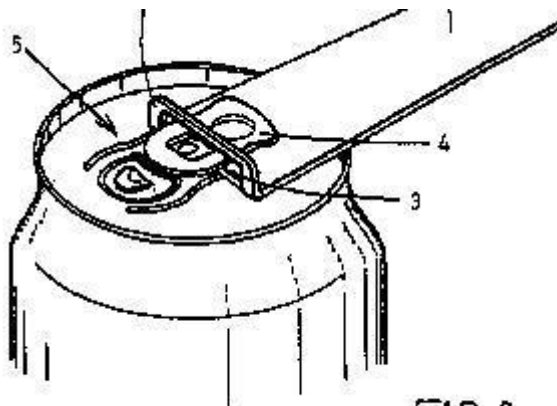


FIG. 3

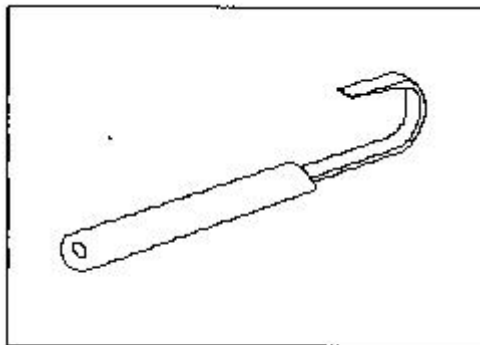


Fig. 1

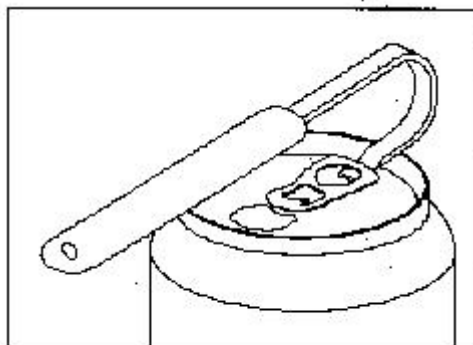


Fig. 2

B67B 7/406

{and subsequently tearing off the top of the can}

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.

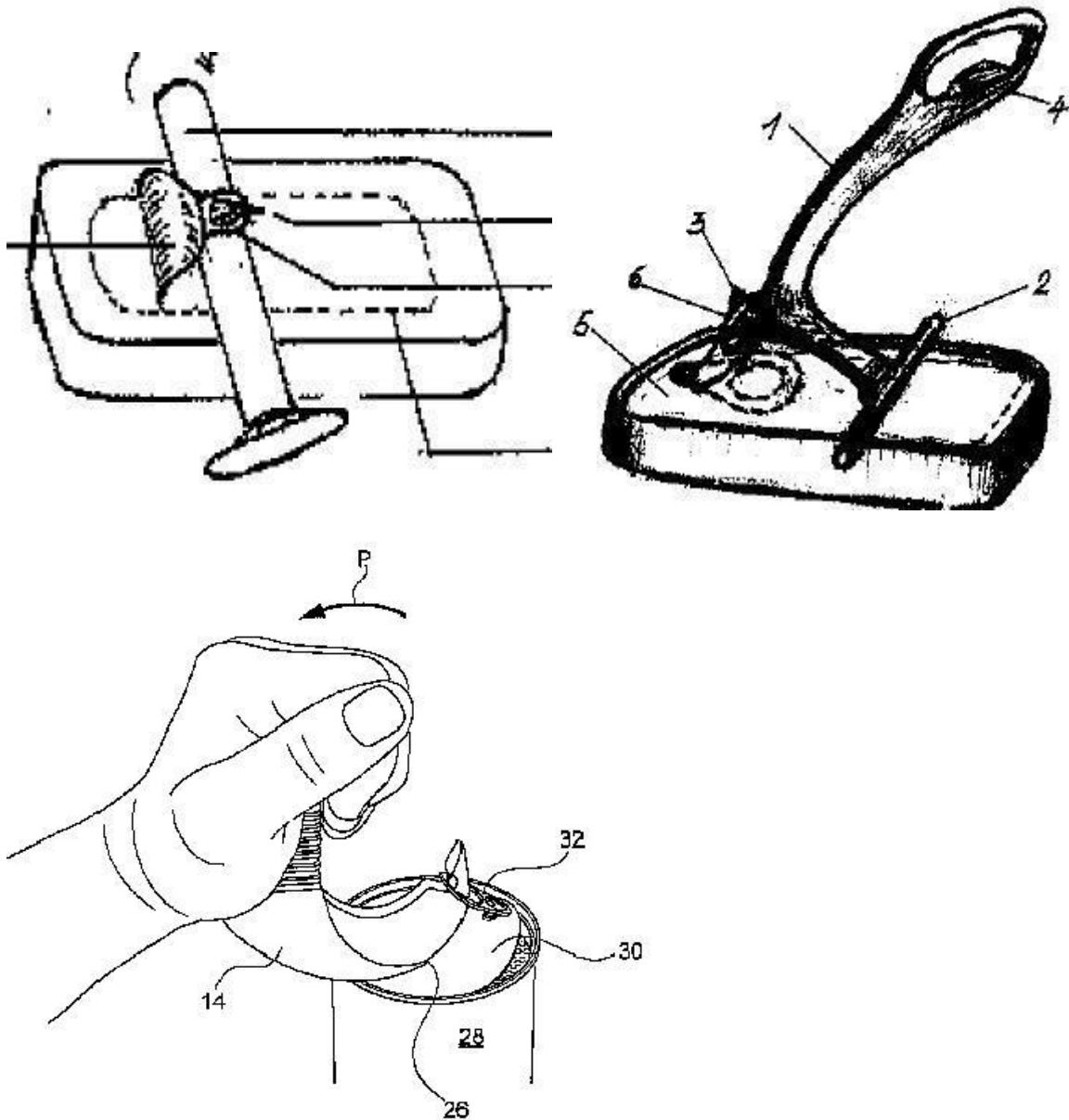


FIG. 5

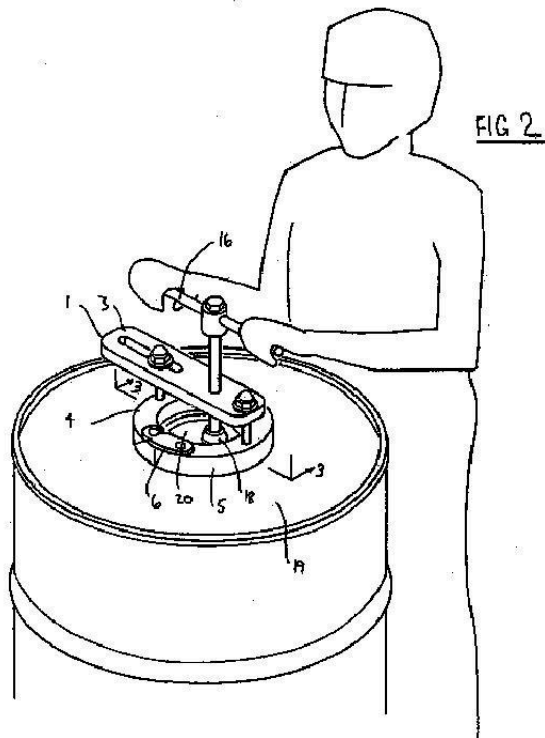
B67B 7/42

Devices for removing barrel bungs

Definition statement

This place covers:

Illustrative example of subject matter classified in this group.



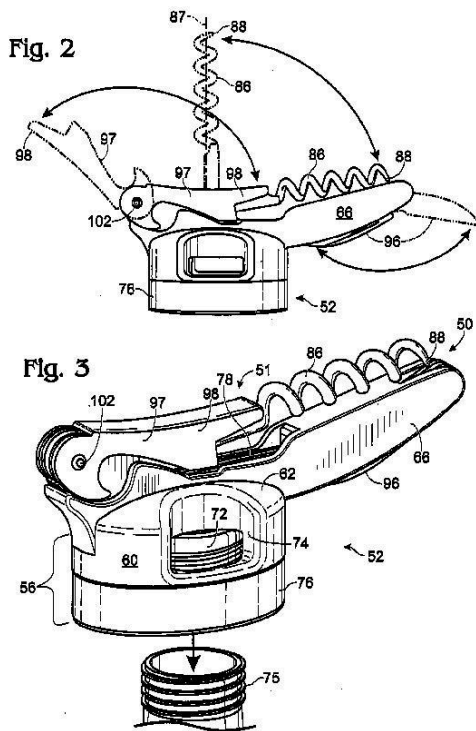
B67B 7/44

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](#))

Definition statement

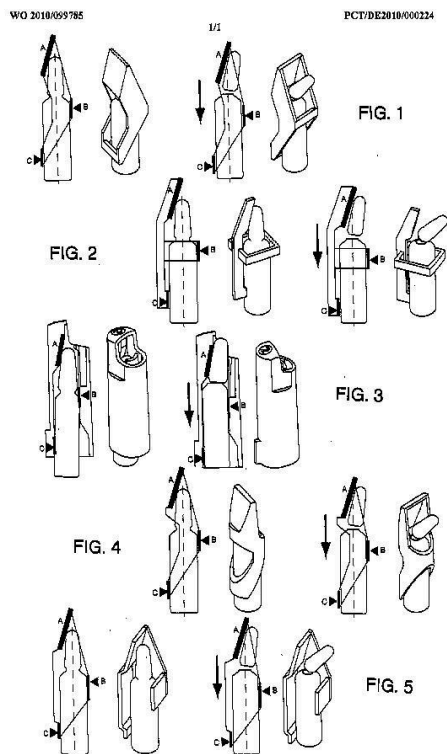
This place covers:

Illustrative example of subject matter classified in this group.



B67B 7/92**by breaking, e.g. for ampoules****Definition statement***This place covers:*

Illustrative example of subject matter classified in this group.

**References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Devices for breaking closed containers	B01F 35/713 , A61J 1/2089
--	--