

B08B

CLEANING IN GENERAL; PREVENTION OF FOULING IN GENERAL (brushes [A46](#); devices for domestic or like cleaning [A47L](#); {cleaning golf-clubs or golf accessories [A63B 57/60](#); cleaning grips of bats on rackets [A63B 60/36](#)} ; separation of particles from liquids or gases [B01D](#); separation of solids [B03](#), [B07](#); spraying or applying liquids or other fluent materials to surfaces in general [B05](#); cleaning devices for conveyors [B65G 45/10](#); concurrent cleaning, filling and closing of bottles [B67C 7/00](#); inhibiting corrosion or incrustation in general [C23](#); cleaning streets, permanent ways, beaches or land [E01H](#); parts, details or accessories of swimming or splash baths or pools, specially adapted for cleaning [E04H 4/16](#); preventing or removing electrostatic charges [H05F](#))

Definition statement

This place covers:

This subclass covers only inventions relating to cleaning which are usually classified according to one (or more) of the aspects mentioned below if they are not fully classifiable in a subclass providing for any of the following aspects: the articles cleaned, e.g. bed-pans, urinal or other sanitary devices for bed-ridden persons [A61G 9/02](#), filters, semi-permeable membranes [B01D](#), castings and moulds [B22D 29/00](#), vehicles [B60S](#), coke ovens [C10B 43/00](#), building forms [E04G](#), boilers [F22](#), combustion apparatus [F23](#), furnaces [F27](#), solar panels for the production of heat [F24S 40/20](#); the general nature of the cleaning, e.g. preparing for sugar manufacture [A23N](#), domestic cleaning [A47L](#), treatment of textiles [D06](#), laundry [D06F](#), air-conditioning [F24F](#); the particular operation performed, e.g. filtering [B01D](#), separating of solids [B03](#), [B07](#), sand-blasting [B24C](#); the particular apparatus or device, e.g. brushes [A46B](#), mops [A47L](#), centrifuges [B04](#), hand tools [B25](#) devices for cleaning paint-applying hand tools after use [B44D 3/006](#); the substance cleaned, e.g. metals [B21C](#), [C23](#), water [C02](#), glass [C03B](#), leather [C14B](#), textile fibres [D01](#); the substance removed (or prevented from depositing or forming) e.g. removing paint [B44D 3/00](#), e.g. implements or apparatus for removing dry paint from surfaces [B44D 3/16](#); chemical paint-removers [C09D 9/00](#); preventing rust [C23F](#); the substance used, e.g. macromolecular compounds or compositions [C08](#), anti-icing materials [C09K](#), detergents [C11D](#), reactive gases [C23C16/445](#); the operation in connection with which cleaning is done, e.g. metal rolling [B21B](#), metal boring [B23B](#), soldering [B23K](#), textile fabrication [D01G](#), [D01H](#), [D03J](#), [D04B](#); the surroundings of a surface to be cleaned or kept clean, e.g. water in a boiler [C02F](#), air in a room [F24F](#).

B08B 1/00

Cleaning by methods involving the use of tools (cleaning hollow articles by methods or apparatus specially adapted thereto [B08B 9/00](#))

Definition statement

This place covers:

The mechanical cleaning of articles by means of mechanical members such as tools, brushes, or analogous members, with or without the application of fluid.

References

Limiting references

This place does not cover:

Cleaning hollow articles by methods or apparatus specially adapted thereto	B08B 9/00
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Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

wipe(n)	a piece of cloth or paper, optionally treated with a cleaning agent or solution, for cleaning articles by wiping
wiper	a cleaning element comprising a flexible blade

B08B 1/20

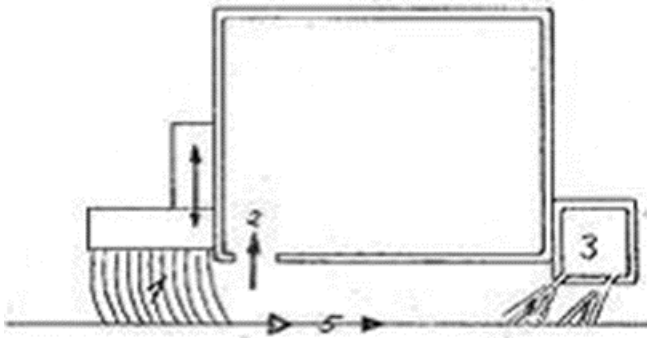
Cleaning of moving articles, e.g. of moving webs or of objects on a conveyor

Definition statement

This place covers:

The cleaning of articles while they are travelling past at least one cleaning member.

Illustrative example of subject matter classified in this group:



B08B 1/30

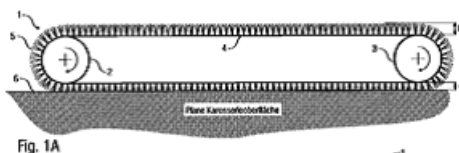
by movement of cleaning members over a surface

Definition statement

This place covers:

The cleaning of articles by means of cleaning members comprising guiding means for performing a translatory movement along the articles to be cleaned.

Illustrative example of subject matter classified in this group:



B08B 1/32

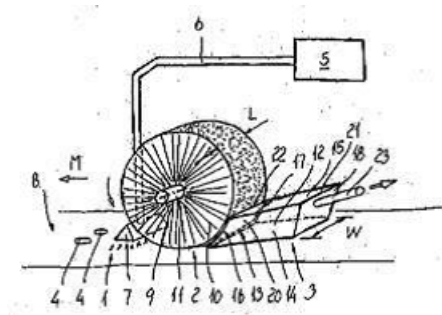
using rotary cleaning members

Definition statement

This place covers:

The cleaning of articles by means of cleaning members which are arranged to perform a rotary movement over a surface.

Illustrative example of subject matter classified in this group:

**B08B 1/50**

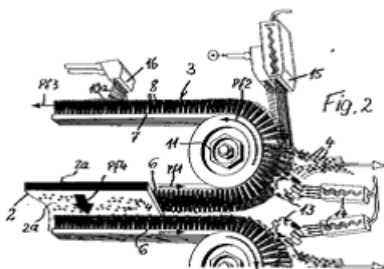
involving cleaning of the cleaning members

Definition statement

This place covers:

The cleaning of articles by methods involving the use of tools, brushes or analogous members, further comprising means to clean or regenerate the cleaning members.

Illustrative example of subject matter classified in this group:

**B08B 3/00**

Cleaning by methods involving the use or presence of liquid or steam
(**B08B 9/00** takes precedence)

Definition statement

This place covers:

The mechanical cleaning of objects by means of liquid. The cleaning of objects by means of contacting with steam.

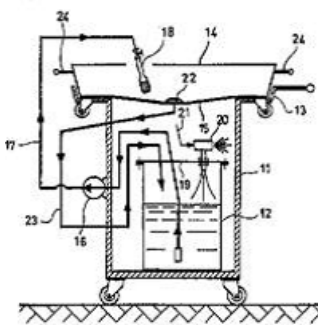
B08B 3/003**{Cleaning involving contact with foam}****Definition statement***This place covers:*

The cleaning of objects by means of contacting with a foam.

B08B 3/006**{Cabinets or cupboards specially adapted for cleaning articles by hand}****Definition statement***This place covers:*

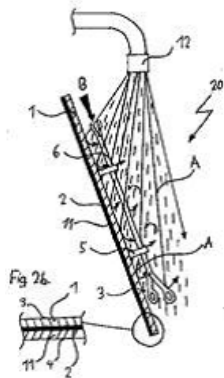
Manual cleaning of objects while these are located within a cabinet such as a parts washer.

Example: EP-A2-1524040

**B08B 3/02****Cleaning by the force of jets or sprays****Definition statement***This place covers:*

The cleaning of objects by means of the mechanical action of a liquid or steam jet.

Example: WO-A1-03/092524



B08B 3/022

{Cleaning travelling work ([B08B 3/042](#) takes precedence)}

Definition statement

This place covers:

The cleaning of objects while these are travelling past at least one fluid jet.

B08B 3/024

{Cleaning by means of spray elements moving over the surface to be cleaned}

Definition statement

This place covers:

The cleaning of objects by means of fluid jets comprising guiding means for performing a controlled movement along the object to be cleaned.

B08B 3/026

{Cleaning by making use of hand-held spray guns; Fluid preparations therefor}

Definition statement

This place covers:

The cleaning of objects by means of hand-held spray guns.

B08B 3/028

{Spray guns}

Definition statement

This place covers:

Gun lances used in the cleaning of objects by means of hand-held spray guns.

B08B 3/04

Cleaning involving contact with liquid

Definition statement

This place covers:

The cleaning of objects by means of contacting with a liquid.

B08B 3/041

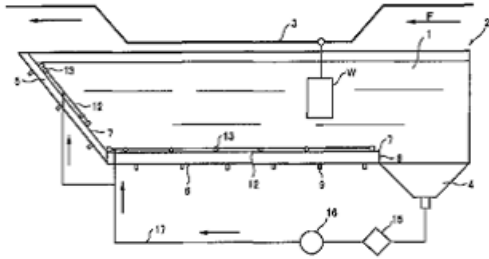
{Cleaning travelling work}

Definition statement

This place covers:

The cleaning of objects while these are travelling and in contact with a liquid.

Example: GB-A-2469605



B08B 3/042

{the loose articles or bulk material travelling gradually through a drum or other container, e.g. by helix or gravity}

Definition statement

This place covers:

The cleaning of objects while these are travelling gradually through a container in contact with a liquid.

B08B 3/044

{using agitated containers in which the liquid and articles or material are placed (by means of ultrasonic vibrations [B08B 3/12](#); cleaning casks or barrels by agitating [B08B 9/0817](#); mixers with shaking, oscillating or vibrating mechanisms [B01F 31/00](#))}

Definition statement

This place covers:

The cleaning of objects while these are within an agitated container filled with a liquid.

B08B 3/045

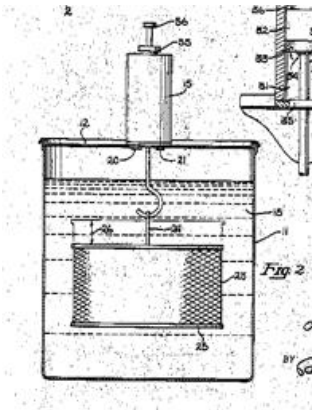
{using perforated containers, e.g. baskets, or racks immersed and agitated in a liquid bath (using perforated drums [B08B 3/06](#))}

Definition statement

This place covers:

The cleaning of objects while these are within a perforated container which is agitated within a liquid bath.

Example: US-A-3794053



B08B 3/047

{Containers specially adapted therefor}

Definition statement

This place covers:

Specially adapted perforated containers.

B08B 3/06

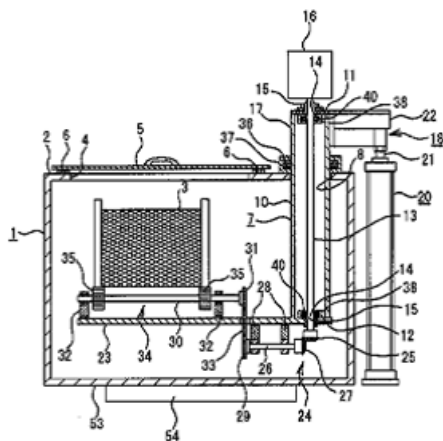
using perforated drums in which the article or material is placed {([B08B 3/042](#) takes precedence)}

Definition statement

This place covers:

The cleaning of objects while these are within a perforated drum and contacted with a liquid.

Example: US-A1-2010/126537



B08B 3/08

the liquid having chemical or dissolving effect (substances used, see the relevant classes)

Definition statement

This place covers:

The cleaning of objects by means of contacting with a liquid having chemical or dissolving effect in addition to the mechanical action of the liquid.

B08B 3/10

with additional treatment of the liquid or of the object being cleaned, e.g. by heat, by electricity or by vibration

Definition statement

This place covers:

The cleaning of objects while these are contacted with a liquid and whereby the liquid or the object is subjected to an additional treatment.

B08B 3/102

{with means for agitating the liquid (by agitating the container [B08B 3/042](#), [B08B 3/044](#), [B08B 3/045](#), [B08B 3/06](#))}

Definition statement

This place covers:

Subjecting the liquid to agitation.

B08B 3/104

{using propellers}

Definition statement

This place covers:

Subjecting the liquid to agitation by means of propellers.

B08B 3/12

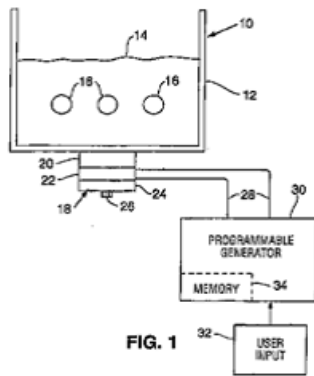
by sonic or ultrasonic vibrations (washing or rinsing machines for crockery or tableware using sonic or ultrasonic waves [A47L 15/13](#); of natural teeth, of prostheses using ultrasonic techniques similar to those used for natural teeth [A61C 17/20](#); application of ultrasonic vibrations to chemical, physical or physico-chemical processes in general [B01J 19/10](#))

Definition statement

This place covers:

Subjecting the object or the liquid to sonic or ultrasonic vibrations.

Illustrative example of the subject matter classified in this group:



References

Limiting references

This place does not cover:

Washing or rinsing machines for crockery or tableware using sonic or ultrasonic waves	A47L 15/13
Of natural teeth, of prostheses using ultrasonic techniques similar to those used for natural teeth	A61C 17/20

Informative references

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

Application of ultrasonic vibrations to chemical, physical or physico-chemical processes in general	B01J 19/10
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Special rules of classification

Reference [B01J 19/10](#) is non-limiting in the subgroup [B08B 3/12](#). CPC will be corrected once this inconsistency is resolved in IPC.

B08B 3/123

{Cleaning travelling work, e.g. webs, articles on a conveyor (conveyors [B65G](#); handling webs [B65H](#))}

Definition statement

This place covers:

Subjecting the object or the liquid to sonic or ultrasonic vibrations while the objects are travelling.

B08B 3/14

Removing waste, e.g. labels, from cleaning liquid; {Regenerating cleaning liquids} (treatment of water in general [C02F](#))

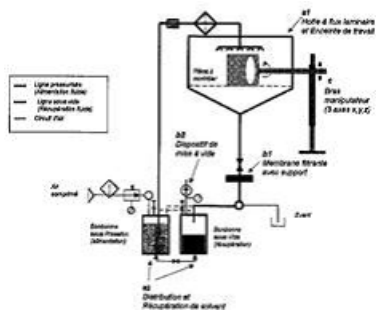
Definition statement

This place covers:

The additional treatment of the liquid consists in removing contaminants from the liquid.

Definition statement

Example: FR-A1-2820995



B08B 5/00

Cleaning by methods involving the use of air flow or gas flow ([B08B 6/00](#) takes precedence)

Definition statement

This place covers:

The cleaning of objects by means of a gas.

B08B 5/02

Cleaning by the force of jets, e.g. blowing-out cavities {(airguns or nozzles per se [B05B 1/005](#))}

Definition statement

This place covers:

The cleaning of objects by means of the mechanical action of a gas jet.

B08B 5/04

Cleaning by suction, with or without auxiliary action ({[B08B 9/035](#) takes precedence; } suction cleaners [A47L](#))

Definition statement

This place covers:

The cleaning of objects by means of the mechanical action of suction.

B08B 6/00

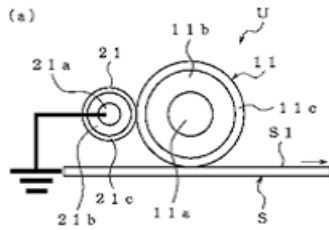
Cleaning by electrostatic means (domestic cleaning implements functioning electrostatically [A47L 13/40](#); cleaning of grooved record carriers [G11B 3/58](#))

Definition statement

This place covers:

The cleaning of objects by means of electrostatic action on the contaminants.

Example: WO-A1-2010/109755



B08B 7/0007

{by explosions}

Definition statement

This place covers:

The cleaning of objects by means of subjecting the objects to an explosion.

Example: US-A1-2004216698

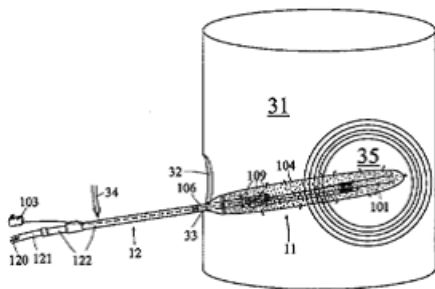


FIG. 3

B08B 7/0014

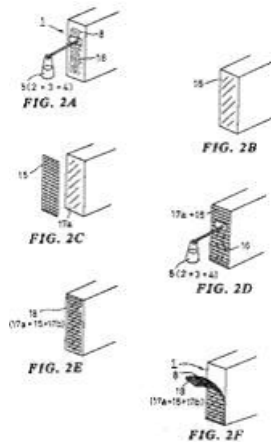
{by incorporation in a layer which is removed with the contaminants}

Definition statement

This place covers:

The cleaning of objects by means of applying a layer to a contaminated surface, into which layer contaminants become incorporated, and removing the layer with the contaminants.

Example US-A-6123777



B08B 7/0021

{by liquid gases or supercritical fluids}

Definition statement

This place covers:

The cleaning of objects by means of subjecting the objects to the washing action of a liquid gas or a supercritical fluid.

B08B 7/0028

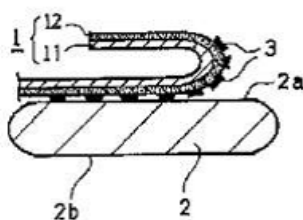
{by adhesive surfaces}

Definition statement

This place covers:

The cleaning of objects by means of applying a tacky layer to a contaminated surface, onto which layer contaminants become attached, and removing the layer with the contaminants.

Example: JP-A-8274059



B08B 7/0035

{by radiant energy, e.g. UV, laser, light beam or the like}

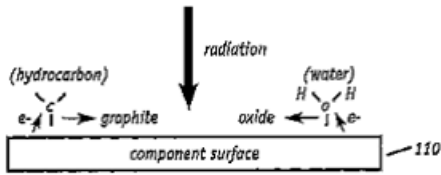
Definition statement

This place covers:

The cleaning of objects by means of subjecting the objects to the action of radiant energy.

Definition statement

Example: WO-A1-02/052347



B08B 7/0042

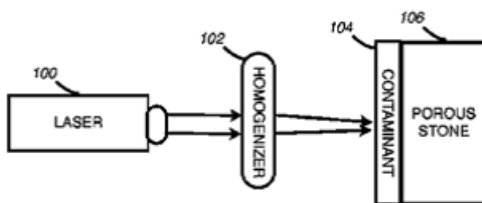
{by laser}

Definition statement

This place covers:

The cleaning of objects by means of subjecting the objects to laser radiation.

Example: US-A1-2011/007308



B08B 7/0064

{by temperature changes}

Definition statement

This place covers:

The cleaning of objects by means of subjecting the objects to temperature changes.

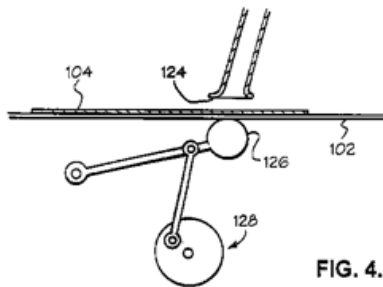
B08B 7/02

by distortion, beating, or vibration of the surface to be cleaned {([B08B 7/0007](#) takes precedence)}

Definition statement

This place covers:

Example: GB-A-2336428

**B08B 9/00**

Cleaning hollow articles by methods or apparatus specially adapted thereto ([B08B 6/00](#) takes precedence)

Definition statement

This place covers:

The cleaning of hollow objects by methods or apparatus specially adapted thereto, the objects being other than containers, pipes.

References**Limiting references**

This place does not cover:

Cleaning by electrostatic means	B08B 6/00
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Informative references

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

Cleaning by sonic or ultrasonic vibrations	B08B 3/12
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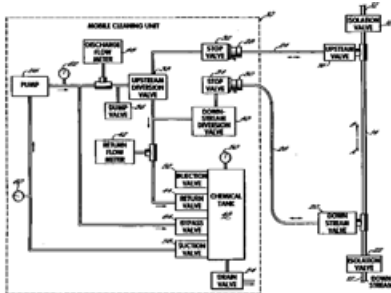
B08B 9/0321

{using pressurised, pulsating or purging fluid ([E04F 17/126](#) takes precedence)}

Definition statement

This place covers:

Example: WO-A-97/15406



Special rules of classification

In this group "Purging" is to be understood as "flushing". The concept of the group is that the pipe is being flushed.

The idea of the parent group [B08B 9/032](#) is to cover subject-matter involving mechanical action with a cleaning fluid which is not classifiable in any of the subgroups.

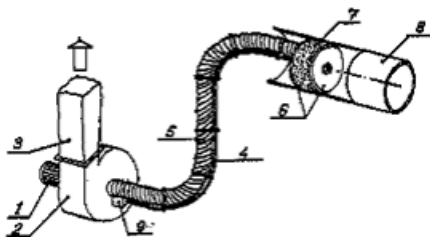
B08B 9/035

by suction

Definition statement

This place covers:

Example: WO85/02565



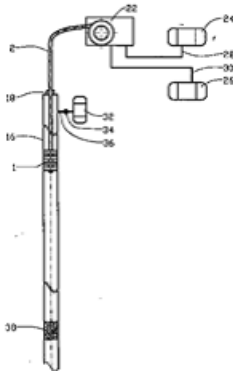
B08B 9/043

moved by externally powered mechanical linkage, e.g. pushed or drawn through the pipes

Definition statement

This place covers:

Example: WO-A1-03/095792

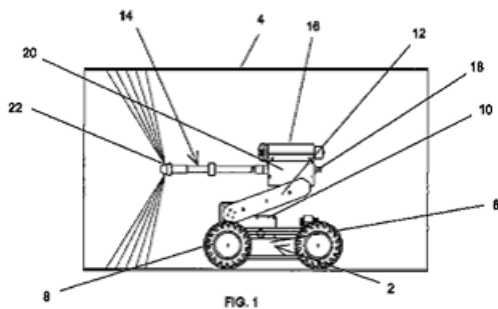
**B08B 9/049**

having self-contained propelling means for moving the cleaning devices along the pipes {, i.e. self-propelled}

Definition statement

This place covers:

Example: US-A1-2008/001005



B08B 9/053

moved along the pipes by a fluid, e.g. by fluid pressure or by suction

Definition statement

This place covers:

Example: US-A1-2010/012151



FIGURE 1

B08B 9/08

Cleaning containers, e.g. tanks

Definition statement

This place covers:

The cleaning of inner and/or outer surfaces of containers by methods or apparatus specially adapted thereto.

B08B 9/0804

{Cleaning containers having tubular shape, e.g. casks, barrels, drums
([B08B 9/20](#) take precedence)}

Definition statement

This place covers:

The cleaning of containers, whereby the tubular shape of the container is essential to the definition of the cleaning method or apparatus.

B08B 9/0808

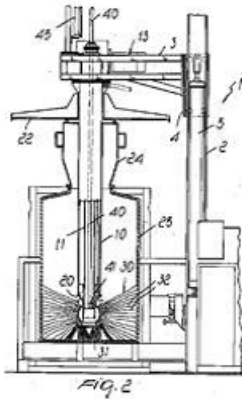
{by methods involving the use of tools, e.g. by brushes, scrapers}

Definition statement

This place covers:

The cleaning of containers by means of mechanical members, whereby the shape of the container is essential to the definition of the mechanical member used.

Example: EP-A1-1236521



B08B 9/0813

{by the force of jets or sprays}

Definition statement

This place covers:

The cleaning of containers by means of a fluid jet, whereby the shape of the container is essential to the definition of the fluid jet applied.

B08B 9/087

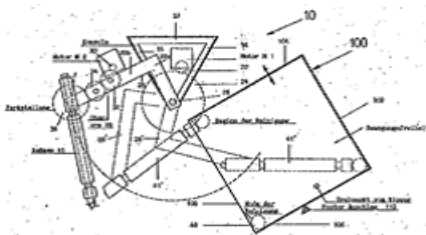
**by methods involving the use of tools, e.g. brushes, scrapers ({B08B 9/0808} ,
[B08B 9/20](#) take precedence)**

Definition statement

This place covers:

The cleaning of containers by means of mechanical members, whereby the shape of the container is not essential to the definition of the mechanical member used.

Example: DE-C1-3311117



B08B 9/093

by the force of jets or sprays ({B08B 9/0813} , [B08B 9/20](#) take precedence)

Definition statement

This place covers:

The cleaning of containers by means of a fluid jet, whereby the shape of the container is not essential to the definition of the fluid jet applied.

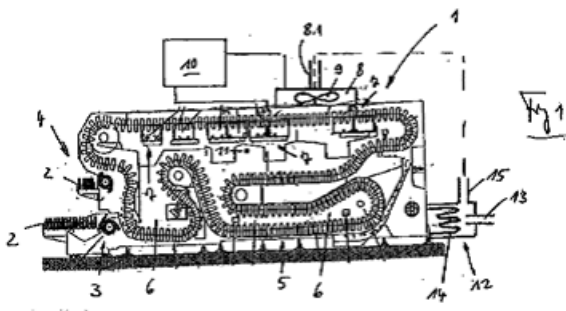
B08B 9/0933**{Removing sludge or the like from tank bottoms}****Definition statement***This place covers:*

The removal of sludge, sediment or the like from container bottoms, using a fluid jet to fluidize the sludge, sediment or the like.

B08B 9/20**by using apparatus into or on to which containers, e.g. bottles, jars, cans are brought {(washing or rinsing crockery or tableware [A47L 15/00](#))}****Definition statement***This place covers:*

Methods and apparatus for the cleaning of series of bottles.

Example: WO-A1-2009/124688

**B08B 9/205****{Conveying containers to or from the cleaning machines}****Definition statement***This place covers:*

The cleaning method or apparatus being characterized by the method or apparatus for conveying the bottles to or from the cleaning machine.

B08B 9/44**the means being for loading or unloading the apparatus****Definition statement***This place covers:*

The cleaning method or apparatus being characterized by the method or apparatus for loading or unloading the bottles.

B08B 9/46**Inspecting cleaned containers for cleanliness****Definition statement**

This place covers:

The cleaning method or apparatus being characterized by the method or apparatus for inspecting cleaned bottles.

B08B 15/002

{using a central suction system, e.g. for collecting exhaust gases in workshops (removing dust from textile machines [D01H 11/00](#); ventilation of mines, galleries or tunnels, e.g. traffic tunnels, [E21F 1/00](#))}

Definition statement

This place covers:

Collecting or removing dirt or fumes from the area where these are produced using a central suction system to which a plurality of collecting or removing devices are connected.

B08B 15/005

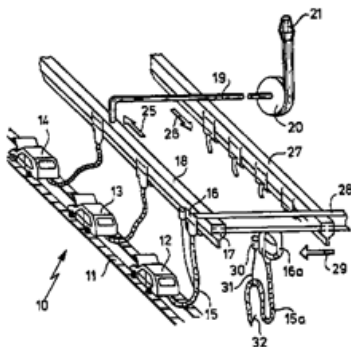
{comprising a stationary main duct with one or more branch units, the branch units being freely movable along a sealed longitudinal slit in the main duct}

Definition statement

This place covers:

Branch units configured to move along a sealed longitudinal slit in a main duct, the branch units travelling with a source of dirt or fumes.

Example: EP-A1-0174481



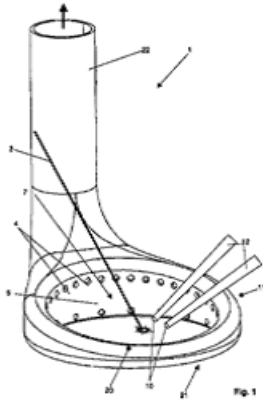
B08B 15/007

{Fume suction nozzles arranged on a closed or semi-closed surface, e.g. on a circular, ring-shaped or rectangular surface adjacent the area where fumes are produced (**B08B 15/04** takes precedence)}

Definition statement

This place covers:

Example: DE-A1-102004031881

**B08B 17/06**

by giving articles subject to fouling a special shape or arrangement

Definition statement

This place covers:

Preventing fouling or deposition of fouling or of dust by means of giving articles subject to fouling a shape or arrangement such that fouling or deposition of fouling or of dust will be minimized or eliminated, e.g. by application of the lotus effect.

Example: DE-A1-102005013560

