

B08B

CLEANING IN GENERAL; PREVENTION OF FOULING IN GENERAL (brushes A46B; devices for domestic or like cleaning, dishwashers A47L; [N: cleaning golf-clubs or golf accessories A63B57/0087; cleaning grips of bats on rackets A63B59/0062]; 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 conveyers B65G45/10; concurrent cleaning, filling and closing of bottles B67C7/00; 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 E04H4/16 ; preventing or removing electrostatic charges H05F; cleaning semiconductor wafers H01L21/02041, H01L21/6704)

Definition statement

This subclass/group covers:

This subclass covers only inventions relating to cleaning which are 3 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 [F24J 2/461](#); 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 [N: 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. [N: 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 [C23C 16/445](#); the operation in connection with which cleaning is done, e.g. metal rolling [B21B](#), metal boring [B23B](#), soldering [B23K](#), textile fabrication [D01G](#), H, [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, brushes, or analogous members (B08B3/12, B08B6/00, [N: B08B7/02], B08B9/00 take precedence)

Definition statement

This subclass/group covers:

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

B08B 1/007

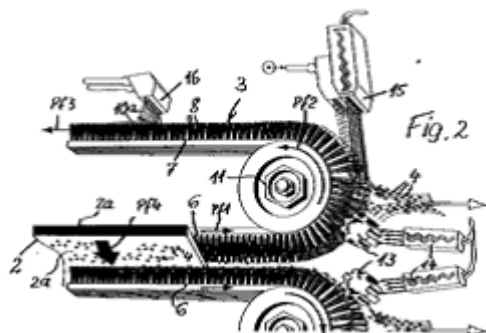
[N: having means to clean the cleaning members before, during or after use]

Definition statement

This subclass/group covers:

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

Example: EP-A2-1101542



B08B 1/008

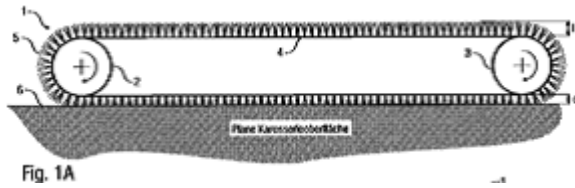
[N: using translating operative members]

Definition statement

This subclass/group covers:

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

Example: WO-A1-2009/046916



B08B 1/02

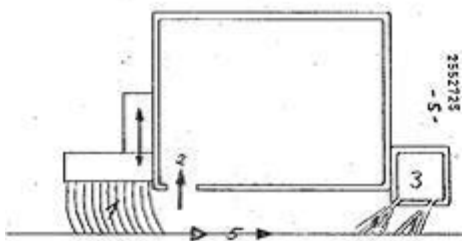
Cleaning travelling work, e.g. a web, articles on a conveyer

Definition statement

This subclass/group covers:

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

Example: DE-A1-19770602



B08B 1/04

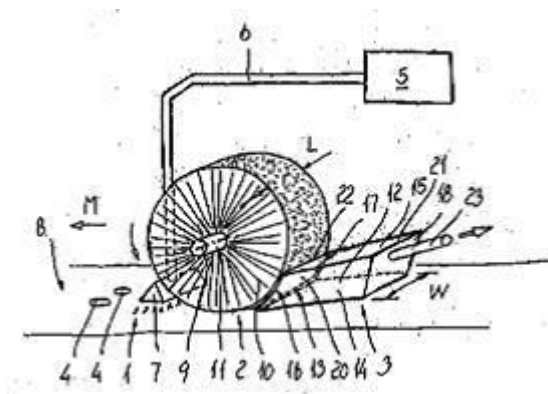
using rotary operative members (B08B1/02 takes precedence)

Definition statement

This subclass/group covers:

The cleaning of objects by means of cleaning members which are arranged to perform a rotary movement during cleaning.

Example: WO-A1-01/78910



B08B 3/00

Cleaning by methods involving the use or presence of liquid or steam (B08B9/00 takes precedence)

Definition statement

This subclass/group covers:

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

B08B 3/003

[N: Cleaning involving contact with foam]

Definition statement

This subclass/group covers:

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

B08B 3/006

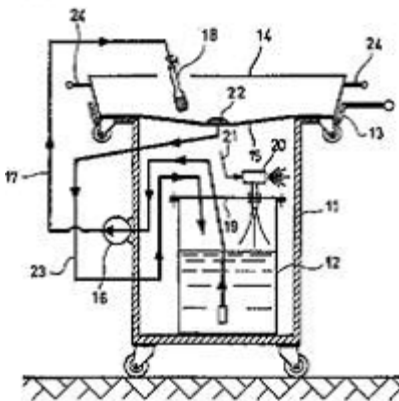
[N: Cabinets or cupboards specially adapted for cleaning articles by hand]

Definition statement

This subclass/group covers:

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

Example: EP-A2-1524040



B08B 3/02

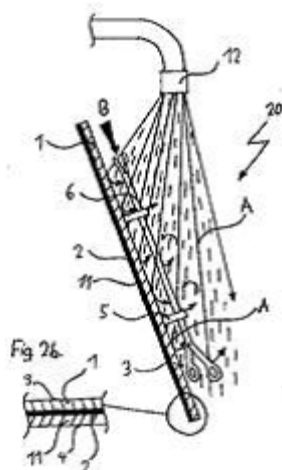
Cleaning by the force of jets or sprays

Definition statement

This subclass/group 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

[N: Cleaning travelling work (B08B3/042 takes precedence)]

Definition statement

This subclass/group covers:

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

B08B 3/024

[N: Cleaning by means of spray elements moving over the surface to be cleaned]

Definition statement

This subclass/group 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

[N: Cleaning by making use of hand-held spray guns; Fluid preparations therefor]

Definition statement

This subclass/group covers:

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

B08B 3/028

[N: Spray guns]

Definition statement

This subclass/group 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 subclass/group covers:

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

B08B 3/041

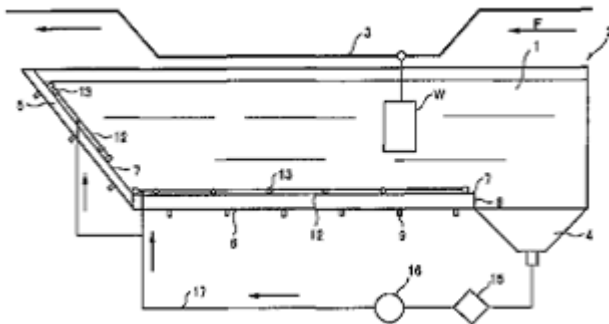
[N: Cleaning travelling work]

Definition statement

This subclass/group covers:

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

Example: GB-A-2469605



B08B 3/042

[N: the loose articles or bulk material travelling gradually through a drum or other container, e.g. by helix or gravity]

Definition statement

This subclass/group covers:

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

B08B 3/044

[N: using agitated containers in which the liquid and articles or material are placed (by means of ultrasonic vibrations B08B3/12; cleaning casks or barrels by agitating B08B9/12D; mixers with shaking, oscillating or vibrating mechanisms B01F11/00)]

Definition statement

This subclass/group covers:

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

B08B 3/045

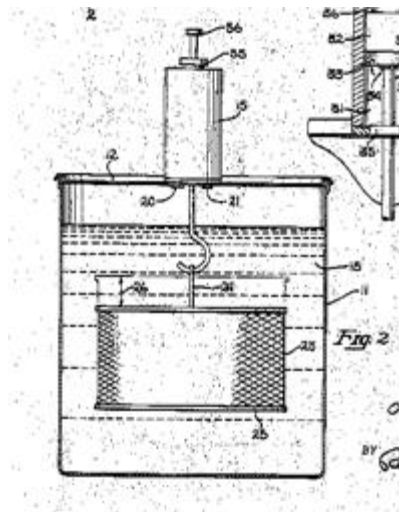
[N: using perforated containers, e.g. baskets, or racks immersed and agitated in a liquid bath (using perforated drums B08B3/06)]

Definition statement

This subclass/group 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

[N: Containers specially adapted therefor]

Definition statement

This subclass/group covers:
Specially adapted perforated containers.

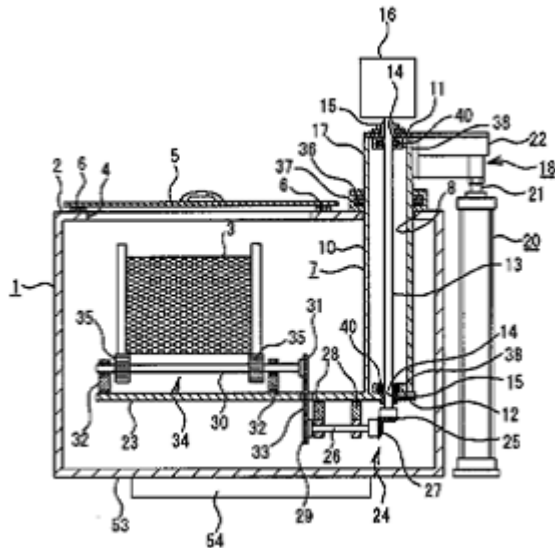
B08B 3/06

using perforated drums in which the article or material is placed [N: (B08B3/042 takes precedence)]

Definition statement

This subclass/group 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 subclass/group covers:

The non-chemical cleaning of objects by means of contacting with a liquid having chemical or dissolving effect.

B08B 3/10

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

Definition statement

This subclass/group 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

[N: with means for agitating the liquid (by agitating the container B08B3/042, B08B3/044, B08B3/045, B08B3/06)]

Definition statement

This subclass/group covers:

Subjecting the liquid to agitation.

B08B 3/104

[N: using propellers]

Definition statement

This subclass/group covers:

Subjecting the liquid to agitation by means of propellers.

B08B 3/12

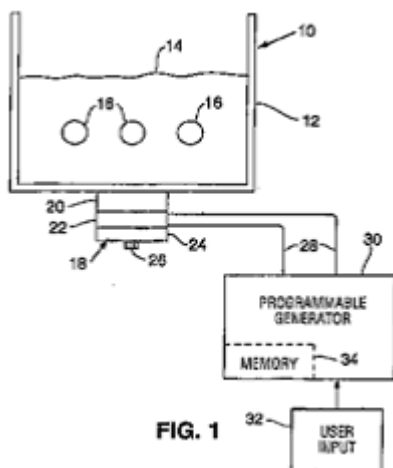
by sonic or ultrasonic vibrations (washing or rinsing machines for crockery or tableware using sonic or ultrasonic wavesA47L15/13; of natural teeth, of protheses using ultrasonic techniques similar to those used for natural teethA61C17/20; application of ultrasonic vibrations to chemical, physical, or physico-chemical processes in generalB01J19/10)

Definition statement

This subclass/group covers:

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

Example: WO-A2-2005/124885



B08B 3/123

[N: Cleaning travelling work, e.g. webs, articles on a conveyer (conveyers B65G; handling webs B65H)]

Definition statement

This subclass/group covers:

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

B08B 3/14

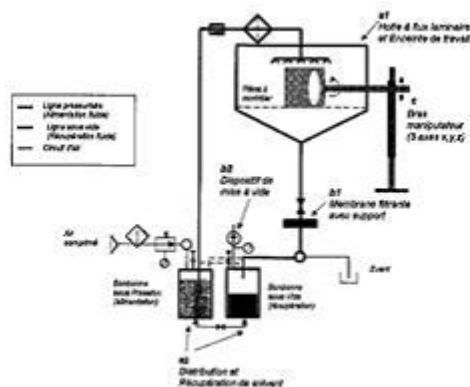
**Removing waste, e.g. labels, from cleaning liquid;
[N:Regenerating cleaning liquids] (treatment of water in
general C02F)**

Definition statement

This subclass/group covers:

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

Example: FR-A1-2820995



B08B 5/00

**Cleaning by methods involving the use of air flow or gas flow
(B08B6/00 takes precedence)**

Definition statement

This subclass/group covers:

The cleaning of objects by means of a gas.

B08B 5/02

**Cleaning by the force of jets, e.g. blowing-out cavities [N:
(airguns or nozzles per se B05B1/005)]**

Definition statement

This subclass/group 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 ([N: 08B9/03TAKES precedence;](suction cleanersA47L))

Definition statement

This subclass/group covers:

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

B08B 6/00

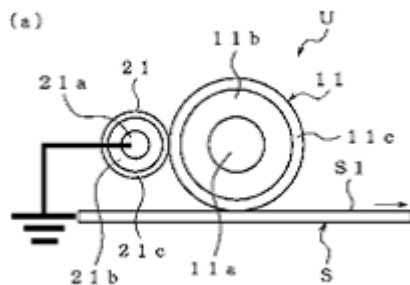
Cleaning by electrostatic means (domestic cleaning implements functioning electrostatically A47L13/40; cleaning of grooved record carriers G11B3/58)

Definition statement

This subclass/group covers:

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

Example: WO-A1-2010/109755



B08B 7/0007

[N: by explosions]

Definition statement

This subclass/group covers:

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

Example: US-A1-2004216698

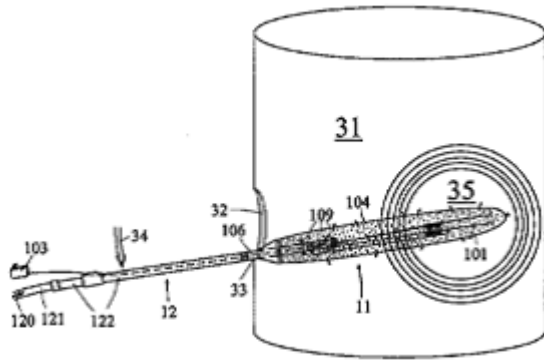


FIG. 3

B08B 7/0014

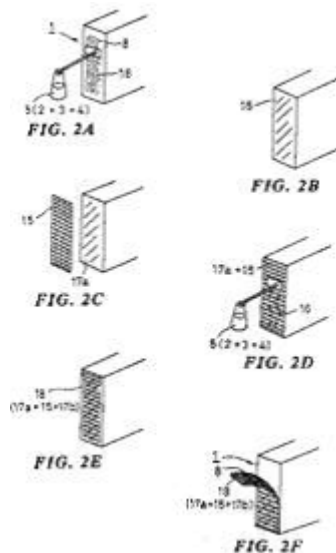
[N: by incorporation in a layer which is removed with the contaminants]

Definition statement

This subclass/group 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

[N: by liquid gases or supercritical fluids]

Definition statement

This subclass/group 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

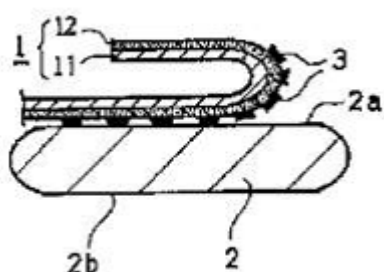
[N: by adhesive surfaces]

Definition statement

This subclass/group 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

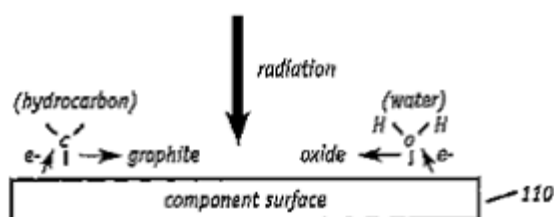
[N: by radiant energy, e.g. UV, laser, light beam or the like]

Definition statement

This subclass/group covers:

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

Example: WO-A1-02/052347



B08B 7/0042

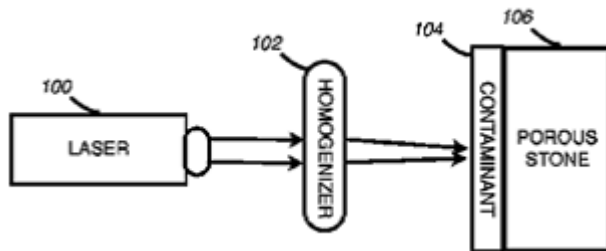
[N: by laser]

Definition statement

This subclass/group covers:

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

Example: US-A1-2011/007308



B08B 7/0064

[N: by temperature changes]

Definition statement

This subclass/group 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 [N: (B08B7/0007 takes precedence)]

Definition statement

This subclass/group covers:

Example: GB-A-2336428

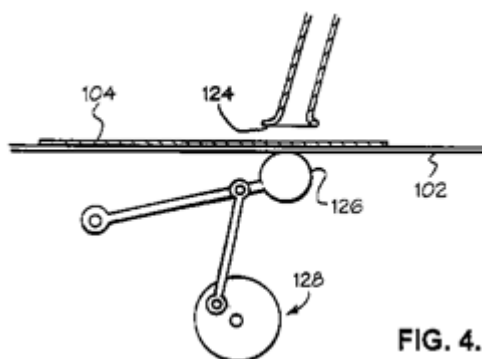


FIG. 4.

B08B 9/00

Cleaning hollow articles by methods or apparatus specially adapted thereto (B08B3/12, B08B6/00 take precedence)

Definition statement

This subclass/group covers:

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

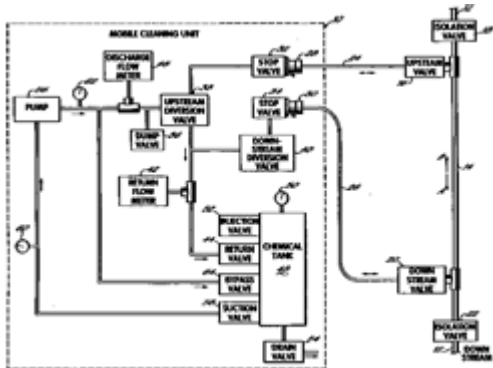
B08B 9/0321

[N: using pressurised, pulsating or purging fluid (E04F17/12B takes precedence)]

Definition statement

This subclass/group covers:

Example: WO-A-97/15406



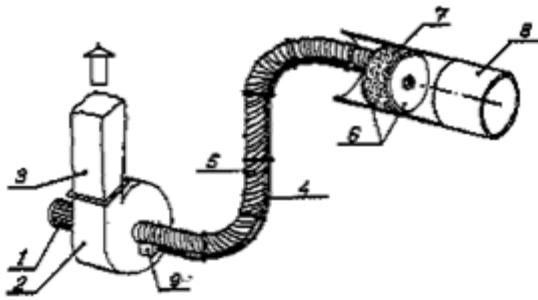
B08B 9/035

by suction

Definition statement

This subclass/group covers:

Example: WO85/02565



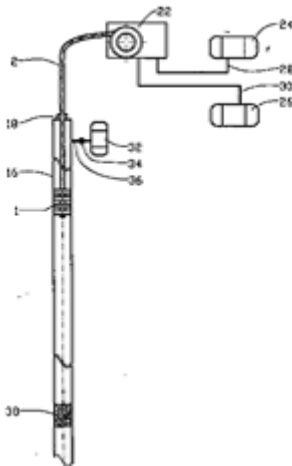
B08B 9/043

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

Definition statement

This subclass/group covers:

Example: WO-A1-03/095792



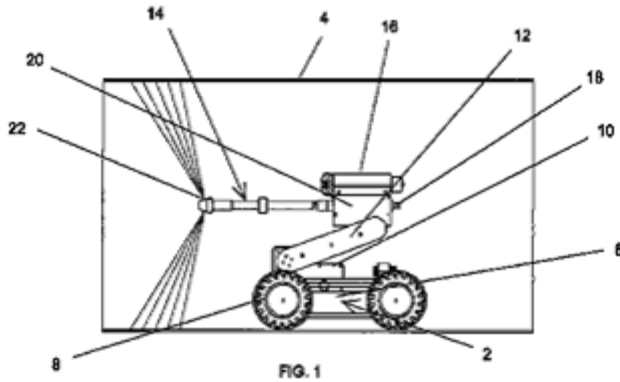
B08B 9/049

having self-contained propelling means for moving the cleaning devices along the pipes [N: i.e. self-propelled]

Definition statement

This subclass/group covers:

Example: US-A1-2008/001005



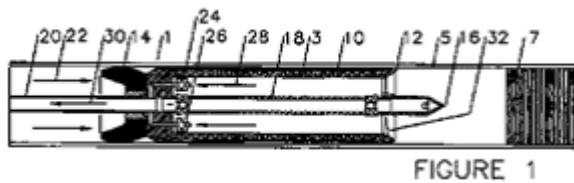
B08B 9/053

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

Definition statement

This subclass/group covers:

Example: US-A1-2010/012151



B08B 9/08

Cleaning containers, e.g. tanks

Definition statement

This subclass/group covers:

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

B08B 9/0804

[N: Cleaning containers having tubular shape, e.g. casks, barrels, drums (B08B9/20 take precedence)]

Definition statement

This subclass/group 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

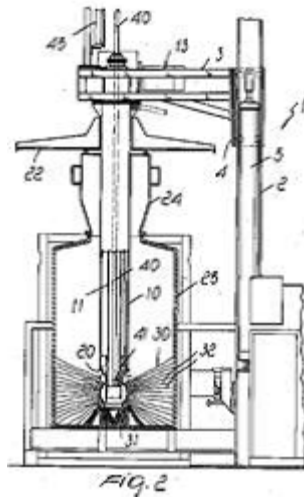
[N: by methods involving the use of tools, e.g. by brushes, scrapers]

Definition statement

This subclass/group 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

[N: by the force of jets or sprays]

Definition statement

This subclass/group 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

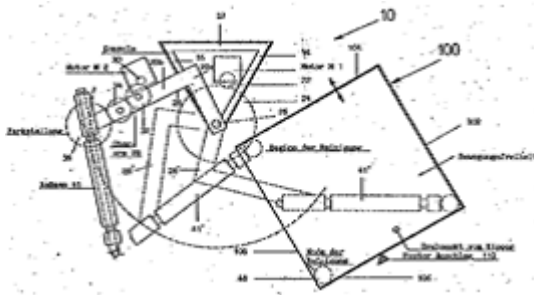
by methods involving the use of tools, e.g. brushes, scrapers
([N: B08B9/0808], B08B9/20 take precedence)

Definition statement

This subclass/group 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 ([N: B08B9/0813], B08B9/20 take precedence)

Definition statement

This subclass/group 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

[N: Removing sludge or the like from tank bottoms]

Definition statement

This subclass/group 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

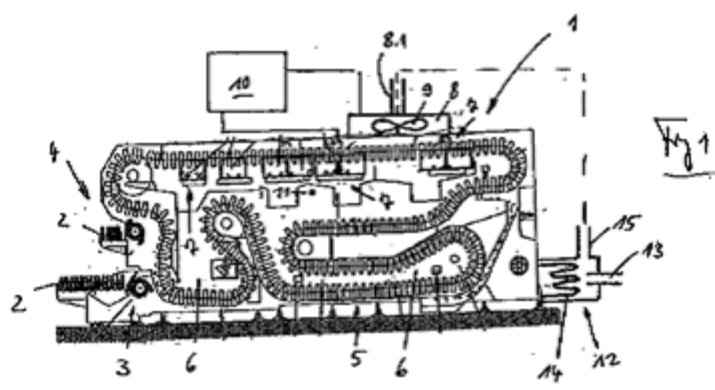
by using apparatus into or on to which containers e.g. bottles, jars, cans are brought [N: (washing or rinsing crockery or tableware A47L15/00)]

Definition statement

This subclass/group covers:

Methods and apparatus for the cleaning of series of bottles.

Example: WO-A1-2009/124688



B08B 9/205

[N: Conveying containers to or from the cleaning machines]

Definition statement

This subclass/group 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 subclass/group 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 subclass/group covers:

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

B08B 15/002

[N: using a central suction system, e.g. for collecting exhaust

gases in workshops (removing dust from textile machines D01H11/00; ventilation of mines, galleries or tunnels, e.g. traffic tunnels, E21F1/00)]

Definition statement

This subclass/group 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

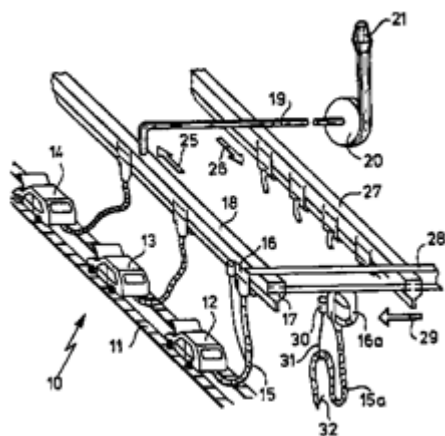
[N: comprising a stationary main duct with one or more branch units, the branch units being freely movable along a sealed longitudinal slit in the main duct]

Definition statement

This subclass/group 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



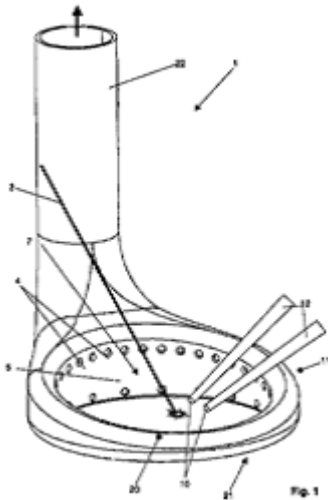
B08B 15/007

[N: Fume suction nozzles arranged on a closed or semiclosed surface, e.g. on a circular, ring-shaped or rectangular surface adjacent the area where fumes are produced (B08B15/04 takes precedence)]

Definition statement

This subclass/group covers:

Example: DE-A1-102004031881



B08B 17/06

by giving articles subject to fouling a special shape or arrangement

Definition statement

This subclass/group 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

