COOPERATIVE PATENT CLASSIFICATION

BUILDING

CONSTRUCTION OF ROADS, RAILWAYS, OR BRIDGES

STREET CLEANING; CLEANING OF PERMANENT WAYS; CLEANING BEACHES;
DISPELLING (OR PREVENTING) FOG IN GENERAL (CLEANING STREET OR
RAILWAY FURNITURE OR TUNNEL WALLS) (cleaning in general B08B)

WARNING
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 Removing undesirable matter from roads or like surfaces, with or without moistening of the surface
(for snow or ice E01H 5/00; cleaning tramway rails E01H 8/00; obstruction removers on vehicles B60R 19/00; in combination with application of bitumen or the like E01C 19/16; in combination with application of traffic line E01C 23/16 ; Sweeping apparatus, particularly for lawns A01G 20/30, A01G 20/40; removing undesirable matter from floors and similar surfaces A47L 5/00 - A47L 13/00))

1/01 . [Treatment of dispersed oil or similar pollution on roads, for instance devices for applying treating agents (hydraulic loosening or removal of liquids E01H 1/10; from surface of open water E02B 15/04)]

1/03 . [Upkeep of road sides along the pavement, for instance cleaning devices particularly for side strips (control of undesirable vegetation E01H 11/00; mowers for embankments A01D 34/86; soil working E02F; trimming pavement edges E01C 23/09)]

1/05 . [Mobile installations, particularly for upkeeping in situ road or railway furniture, for instance road barricades, traffic signs; Mobile installations particularly for upkeeping tunnel walls (built-in cleaning devices E21D 11/003)]

1/06 . [Specially adapted for removing excrements (hand implements E01H 1/12)]

1/08 . [in situ treatment of excrements]

1/02 . Brushing apparatus, [e.g. with auxiliary instruments for mechanically loosening dirt] (E01H 1/003, E01H 1/005, E01H 1/006 and E01H 1/08 - E01H 1/14 take precedence; loosening by means of gas jets or streams E01H 1/0818, E01H 1/0872; with brushes functioning under vacuum or combined with independent suction nozzles E01H 1/0827; loosening by means of liquid streams E01H 1/101; mechanical loosening instruments other than brushes E01H 1/105; for railway tracks E01H 8/00); brushes in general A46B; (for floors or similar surfaces A47L 11/22, A47L 11/241)]

1/04 . . taking- up the sweepings, e.g. for collecting, for loading ((with dust collector; E01H 1/0854 takes precedence; suction machines with brushes E01H 1/0845, E01H 1/0872; taking- up devices with other mechanical loosening instruments E01H 1/106))

1/042 . . . (the loading means being an endless belt or an auger)

1/045 . . . (the loading means being a rotating brush with horizontal axis (E01H 1/042 takes precedence))

1/047 . . . [Collecting apparatus characterised by the hopper or by means for unloading the hopper]

1/05 . . . with driven brushes (E01H 1/04 takes precedence (rotary brushes for snow removal E01H 5/0021))

1/053 . . . [having vertical axes]

1/056 . . . [having horizontal axes]

1/08 . . Pneumatically dislodging or taking-up undesirable matter [or small objects] ((E01H 1/006 and E01H 1/02 take precedence;) suction cleaners in general A47L 5/00 - A47L 9/00; (sucking- off liquids or semi-liquids E01H 1/081); Drying by heat only or by streams of gas (permanently-installed heating or blowing devices E01C 11/26; heating or drying for road- building or repairing E01C 23/14; { devices for melting snow or ice in situ E01H 5/10, E01H 8/08; for scourching undesirable vegetation E01H 11/001); Cleaning by projecting abrasive particles (sand-blasting in general B24C; (roughening of road surfaces E01C 23/08; cleaning of road joints E01C 23/0906))]

1/0809 . . . (Loosening or dislodging by blowing (with steam E01H 1/10 combined with suction E01H 1/0863; removing snow by blowing E01H 5/106; removing fog by blowing E01H 13/00; cleaning rails by blowing E01H 8/105, E01H 8/125; cleaning joints in road construction by blowing E01C 23/0906); Drying by means of gas streams (by heat only E01H 1/08; combined with snow or ice melting E01H 5/10, E01H 5/106, E01H 5/108))}
[Dislodging by suction; Mechanical dislodging-cleaning apparatus with independent or dependent exhaust, e.g. dislodging-sweeping machines with independent suction nozzles (combined with blowing E01H 1/0872); Mechanical loosening devices working under vacuum]

[Apparatus dislodging all of the dirt by suction (liquids or semi-liquids E01H 1/108; combined with loosening by blowing E01H 1/0863; for cleaning rails E01H 8/105; E01H 8/125; removing snow by suction E01H 5/106 E01H 8/08); Suction nozzles (independent suction nozzles in mechanical dislodging-cleaning devices E01H 1/0827; suction and blowing E01H 1/0863)]

[with mechanical loosening or feeding instruments for the dirt to be sucked-up, e.g. brushes, scrapers (brushing installations per se E01H 1/02; other loosening devices per se E01H 1/105)]

[Apparatus in which the mechanically dislodged dirt is partially sucked-off, e.g. dislodging-sweeping apparatus with dirt collector in brush housing or dirt container (mechanical dislodging machines with independent suction nozzles E01H 1/0827; combined with blowing and suction E01H 1/0872)]

[Apparatus loosening or removing the dirt by blowing and subsequently dislodging it at least partially by suction (liquids or semi-liquids E01H 1/108); Combined suction and blowing nozzles]

[Details] (in situ treatment of excrements)

[characterised by way of removing material]

[by pressing a tool in the material to be removed]

[Glove-like means]

[Double or multiple closing means making horizontal sliding movement (not applied for grabs)]

[by using shoes to remove the material]

[the implement being for single use but not glove-like]

[having lighting means]

[having a dog leash]

[haveing means for storing bags or the like]

[storing used bags]

[Walking cane or the like, i.e. implements having a dog leash]

[Removing by magnetic effect (general household magnetic cleaning implements A47L 13/41; as equipment for road vehicles B60R 19/00)]

[Applying liquids to roads or like surfaces, e.g. for dust control; Stationary flushing devices (combined with removal of undesirable matter E01H 1/100; spray heads, other outlets B05B; applying hot water for melting snow E01H 5/10; applicators for melting liquids E01H 10/00; weed destruction E01H 11/00)]
3/02 Mobile apparatus, e.g. watering-vehicles (vehicle features B60P 3/22; moistening combined with the removal of undesirable matter E01H 1/00; mobile flushing or washing installations E01H 1/101; applying liquid materials for road paving materials E01C 19/16; applying curing agents on concrete roads E01C 23/03; applying marking-out agents E01C 23/16; road-moistening devices in cleaning machines per se; mobile apparatus specially adapted for applying liquid or semi-liquid thawing materials E01H 10/007)

3/04 Fixed devices, e.g. permanently-installed flushing means (fixed applicators for defrosting agents E01H 10/00; fixed flushing installations for tramway rails E01B 21/02; built-in irrigation devices for sports grounds E01C 13/02; hydrants E03B 9/00)

4/00 Working on surfaces of snow or ice in order to make them suitable for traffic or sporting purposes, e.g. by compacting snow (production of artificial snow F25C 3/04)

4/02 for sporting purposes, e.g. preparation of ski trails; (construction of artificial surfacings for snow or ice sports (construction of ice skating rinks E01C 13/02); trails specially adapted for on-the-snow vehicles, e.g. devices adapted for ski-trails (production of snow or ice for winter sports or similar recreational purposes F25C 3/00)

4/023 - [Maintaining surfaces for ice sports, e.g. of skating rinks]

2004/026 - [for making half pipes]

5/00 Removing snow or ice from roads or like surfaces; Grading or roughening snow or ice (by applying de-icing agents E01H 10/00; obstruction removers on vehicles B60R 19/00; sand, gravel or salt spreaders E01C 19/20)

5/02 Hand implements (E01H 5/04, E01H 5/10, E01H 5/12 take precedence; shovels or spades in general A01B 1/02; brooms, brushes A46B)

5/04 Apparatus propelled by animal or engine power; Apparatus propelled by hand with driven dislodging or conveying [levelling] elements, conveying pneumatically (for the dislodged material (E01H 5/10, E01H 5/12 take precedence)

5/045 - [Means per se for conveying or discharging the dislodged material, e.g. rotary impellers, discharge chutes (dislodging apparatus provided therewith E01H 5/07, E01H 5/08, E01H 5/104, E01H 5/12)]

5/06 dislodging essentially by non-driven elements, e.g. scraper blades [], snow-plough blades, scoop blades]

5/061 - [by scraper blades]

5/062 - [by scraper blades displacing for shock-absorbing purposes]

5/063 - [by snow-plough blades tiltable for shock-absorbing purposes]

5/065 - [characterised by the form of the snow-plough blade, e.g. flexible, or by snow-plough blade accessories (E01H 5/061, E01H 5/063 take precedence)]

5/066 - [Snow-plough blade accessories, e.g. deflector plates, skid shoes]

5/067 - [by side-wing snow-plough blades]

5/068 - [by backblades (scraper blades mounted on the rear of a tractor E02F 3/7622)]

5/07 and conveying dislodged material by driven or pneumatic means (removing and melting E01H 5/104; picking-up installations scraping off dirt E01H 1/105)

5/073 - [by belt or chain conveyors (dislodging by means of elements secured to endless belts or chains E01H 5/08)]

5/076 - [by rotary or pneumatic conveying means, e.g. impeller wheels (dislodging by rotary means E01H 5/09)]

5/08 dislodging essentially by driven elements, [e.g. vibrated; removing and melting E01H 5/104; with heated instruments E01H 5/10)]

5/09 the elements being rotary or moving along a closed circular path, e.g. rotary cutter, digging wheels

5/092 - [Brushing elements]

5/094 - [about vertical or substantially vertical axies]

5/096 - [about axes parallel or substantially parallel to the direction of clearing]

5/098 - [about horizontal or substantially horizontal axises perpendicular or substantially perpendicular to the direction of clearing]

5/10 by application of heat (for melting snow or ice, whether cleared or not, combined or not with clearing or removing mud or water, e.g. burners for melting in situ, heated clearing instruments) [(drying by heat E01H 1/0809; melting by application of defrosting agents E01H 10/00; weed scorching devices which can also melt snow E01H 11/00; stationary blowing or paving heating means E01C 11/26); (Cleaning snow by blowing or suction only)]

5/102 - [Self-contained devices for melting dislodged snow or ice, e.g. built-in melting chambers, movable melting tanks (combined with removing devices E01H 5/104)]

5/104 - [Removing devices for dislodging snow or ice; followed by melting the removed material (removing by suction only and subsequent melting E01H 5/106)]

5/106 - [Clearing snow or ice exclusively by means of rays or streams of gas or steam, or by suction with or without melting (E01H 5/108 takes precedence; drying by means of gas streams, blowing- off dirt E01H 1/0809; sucking-off dirt E01H 1/0827)]

5/108 - [Devices for melting snow or ice in situ and removing subsequently for the mud or melting water (melting in situ E01H 5/10; by means of hot gases or steam E01H 5/106; removing or melting E01H 1/108)]

5/12 Apparatus or implements specially adapted for breaking, disintegrating, or loosening layers of ice or hard snow (with or without clearing or removing (E01H 5/10 takes precedence); Roughening ice or hard snow by means of tools (by means of gritting materials E01H 10/00; roughening or breaking-up pavements E01C 23/08, E01C 23/12)]
Apparatus equipped with, or having provisions for equipping with, both elements (for especially) removal of refuse or the like and elements for removal of snow or ice (E01H 8/10 takes precedence)

Removing undesirable matter from the permanent way of railways; Removing undesirable matter from tramway rails (E01H 1/00; E01H 6/00 take precedence; {controlling vegetation E01H 11/00; removing ballast from rails or sleepers E01B 27/023; removing, cleaning the ballast itself E01B 27/04, E01B 27/06})

Methods or apparatus for removing ice or snow from railway tracks, e.g. using snow-ploughs {Devices for dislodging snow or ice which are carried or propelled by tramway vehicles} (operating only on rails or flange grooves E01H 8/10); {Moving or removing ballast; (E01B 27/02, E01B 27/04 take precedence; removing snow or ice in general E01H 5/00)}

essentially by non-driven elements {Cleaning instruments, e.g. scraping blades, scoop plates (with oscillating or vibrating tools E01H 8/06; with heated instruments or combined with melting E01H 8/10; ballast ploughs E01B 27/025; track clearing devices B61E 19/06)}

essentially by driven tools {clearing instruments, e.g. rotary cutting tools or brushes (with heated instruments or combined with melting E01H 8/08; for spreading or redistributing ballast E01B 27/026)}

by application of heat, [e.g. by means of heated clearing instruments, melting in situ] {(weed scorching devices which may also melt snow E01H 11/00); heated track E01B 19/00); {Clearing devices which melt the dislodged snow; Clearing exclusively by means of rays or streams or gas or stream, or by suction}

Removing undesirable matter from rails, flange grooves, or the like [railway parts], e.g. removing ice from contact rails, removing mud from flange grooves (heating, blowing, or fluid-applying devices installed in the track E01B 19/00; built-in draining devices for rails E01B 21/02; removing ballast from rails E01B 27/04)

{Pneumatically or hydraulically loosening, removing or dislodging undesirable matter, e.g. removing by blowing, flushing, suction; Application of melting liquids; Loosening or removing by means of heat, e.g. cleaning by plasma torches, drying by burners (E01H 8/125 takes precedence; drying, blowing or liquid-applying devices incorporated in the permanent way E01B 19/00; heating or cooling rails during construction or maintenance E01B 31/18; wetting or lubricating rails B61K 3/00; plasma torches H05H 1/26)}

specially adapted to grooved rails, flangeways, or like [parts of the permanent way, e.g. level crossings or switches]

Removing gripping of ice-bound or other slippery traffic surfaces, e.g. using gritting or thawing materials [Roadside storage of gritting or solid thawing materials; Permanently installed devices for applying gritting or thawing materials; Mobile apparatus specially adapted for treating wintry roads by applying liquid, semi-liquid or granular materials] (toughening ice by means of tools E01H 5/12; applying de-icing agents to rails E01H 8/10; thawing materials C09K 3/18; by constructional features E01C 11/24; {apparatus for distributing granular materials for road building purposes E01C 19/20; treatment of dispersed oil or similar pollution on roads E01H 1/001})

Roadside storage of gritting or solid thawing materials, e.g. grit or salt bins)

Permanently-installed devices for applying gritting or thawing materials, e.g. for spreading grit, for spraying de-icing liquids}

Mobile apparatus specially adapted for preparing or applying liquid or semi-liquid thawing material or spreading granular material on wintry roads}

Control of undesirable vegetation on roads [or similar surfaces] or permanent ways of railways, e.g. devices for scorching weeds or for applying herbicides] (destruction of undesirable vegetation in general A01M 7/00; A01M 15/00, A01M 21/00; weeding involving working the ballast E01B 27/00; mowers for embankments A01D 34/86; hedge shearing machines A01G 3/04); Applying liquids, e.g. water, weed-killer bitumen, to permanent ways (specially to rails E01H 8/10; E01H 8/105, E01H 8/125); for preserving sleepers E01B 31/20)

Cleaning beaches [or sandboxes]

{Treatment in situ (E01H 12/006 takes precedence)}

{using floating devices}

{Oil removal}

{cleaning sandboxes}

Dispersing [or preventing] fog in general, e.g. on roads, on airfields {condensing atmospheric humidity in general A01G 15/00; obtaining drinking water from atmospheric humidity E03B 3/28; heating or blowing devices for keeping roads or the like free from snow or ice E01C 11/26)}

Removing undesirable matter, e.g. rubbish, from the land, not otherwise provided for (gathers for removing stones, roots or the like from the soil A01B 43/00)