CPC - COOPERATIVE PATENT CLASSIFICATION

E FIXED CONSTRUCTIONS

BUILDING

E01 CONSTRUCTION OF ROADS, RAILWAYS, OR BRIDGES

E01H STREET CLEANING; CLEANING OF PERMANENT WAYS; CLEANING BEACHES; DISPERSING (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)

1/001 . (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))

1/003 . (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))

1/005 . (Mobile installations, particularly for upkeepng in situ road or railway furniture, for instance road barricades, traffic signs; Mobile installations particularly for upkeepng tunnel walls (built-in cleaning devices E21D 11/003))

1/006 . (Specially adapted for removing excrements (hand implements E01H 1/12))

1/008 . (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 1/108)); 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 scorching 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)
1/0818 . . . [in apparatus with mechanical loosening or feeding instruments, e.g. brushes, scrapers (brushing devices per se E01H 1/02, other loosening devices per se E01H 1/105)]

1/0827 . . . [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]

1/0836 . . . [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 nozzles E01H 1/0863)]

1/0845 . . . [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)]

1/0854 . . . [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)]

1/0863 . . . [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]

1/0872 . . . [with mechanical loosening or feeding instruments for the dirt to be removed pneumatically, e.g. brushes, scrapers (brushing installations per se E01H 1/02; other loosening devices per se E01H 1/105)]

2001/0881 . . . [Details for pneumatically dislodging or removing not related to the mouth-piece]

2001/089 . . . [Suction-effect created through blowing, e.g. using the venturi effect]

1/01 . . . [Hydraulically loosening or dislodging undesirable matter (stationary flushing devices E01H 3/04); Raking or scraping apparatus (hand implements E01H 1/12) (; Removing liquids or semi-liquids e.g., absorbing water, sliding-off mud (removing pneumatically E01H 1/08; steam-cleaning E01H 1/100)]

1/101 . . . [Hydraulic loosening or dislodging, combined or not with mechanical loosening or dislodging, e.g. road washing machines with brushes or wipers (E01H 1/005 takes precedence; cleaning rails E01H 8/105, E01H 8/125; applying liquids in general E01H 3/00; scrubbing machines for floors or similar surfaces A47L 11/26 - A47L 11/30)]

1/103 . . . [in which the soiled loosening or washing liquid is removed, e.g. by suction (removing liquids in general E01H 1/108)]

1/105 . . . [Raking, scraping or other mechanical loosening devices, e.g. for caked dirt (loosening ice or hard snow E01H 5/12; working the road surface E01C 23/08); Apparatus for mechanically moving dirt on road surfaces, e.g. wipers for evacuating mud (wipers as accessories for road washing machines E01H 1/101; of devices for removing liquids or semi-liquids E01H 1/108; of snow scrapers for evacuating wet snow E01H 5/06; wipers for spreading bitumen or the like E01C 19/16, E01C 19/178)]

1/106 . . . [in which the loosen or dislodged dirt is picked up, e.g. shoveling carts (E01H 1/108 takes precedence)]

1/108 . . . [Removing liquids or semi-liquids, e.g. absorbing rain water, sucking-off mud (in road washing machines E01H 1/103; in snow melting E01H 5/108; applying absorbing agents on oil or the like E01H 1/001; constructional measures for draining roads E01C 11/224)]

1/12 . Hand implements, e.g. litter pickers (blowing or suction instruments E01H 1/08; spraying instruments E01H 1/101; takes A01D 7/00 (; brushes or brooms A46B, A46D; floor scrapers A47L 13/02; floor squeegees A47L 13/11)]

1/1206 . . . [for picking up excrements (manure or urine pouches for animal husbandry A01K 23/00)]

1/1213 . . . [in situ treatment of excrements]

2001/122 . . . [Details]

2001/1226 . . . [characterised by way of removing material]

2001/1233 . . . [by pressing a tool in the material to be removed]

2001/124 . . . [Glove-like means]

2001/1246 . . . [Double or multiple closing means making horizontal sliding movement (not applied for grabs)]

2001/1253 . . . [by using shoes to remove the material]

2001/126 . . . [the implement being for single use but not glove-like]

2001/1266 . . . [having lighting means]

2001/1273 . . . [having a dog leash]

2001/128 . . . [having means for storing bags or the like]

2001/1286 . . . [storing used bags]

2001/1293 . . . [Walking cane or the like, i.e. implements allowing handling while in an upright position]

1/14 . Removing by magnetic effect (general household magnetic cleaning implements A47L 13/41; as equipment for road vehicles B60R 19/00)]

3/00 Applying liquids to roads or like surfaces, e.g. for dust control; Stationary flushing devices (combined with removal of undesirable matter E01H 1/00; 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} take precedence}

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 replaceable for shock-absorbing purposes}

5/063 dislodging essentially by driven elements, e.g. snow ploughs (principally for snow ploughing purposes)

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5/067 by side-wing snow-plough blades
E01H

8/00 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])

8/02 . 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)

8/04 . essentially by non-driven elements (Clearing 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 B61F 19/06))

8/06 . 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 27/06))

8/08 . 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 steam, or by suction)

8/10 . 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)

8/105 . [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)]

8/12 . specially adapted to grooved rails, flangeways, or like [parts of the permanent way, e.g. level crossings or switches]

8/125 . . [Pneumatically or hydraulically loosening, removing or dislodging undesirable matter, e.g. removing by blowing, suction or flushing (flushing devices incorporated in tramay tracks E01B 21/02); Loosening or removing by means of heat (built-in heating, blowing or liquid applying devices for switches E01B 7/24)]

10/00 Improving 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 8/12; 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])

10/002 . {Roadside storage of gritting or solid thawing materials, e.g. grit or salt bins}

10/005 . {Permanently-installed devices for applying gritting or thawing materials, e.g. for spreading grit, for spraying de-icing liquids}

10/007 . {Mobile apparatus specially adapted for preparing or applying liquid or semi-liquid thawing material or spreading granular material on wintry roads}

11/00 Control of undesirable vegetation on roads [or similar surfaces] or permanent ways of railways, [e.g. devices for scourching 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)

12/00 Cleaning beaches [or sandboxes]

12/002 . {Treatment in situ (E01H 12/006 takes precedence)}

12/004 . {using floating devices}

12/006 . {Oil removal}

12/008 . {cleaning sandboxes}

13/00 Dispersing [or preventing] fog in general, e.g. on roads, on airfields {condensing atmospheric humidity in general A01G 1500; 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})

15/00 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)