

CPC COOPERATIVE PATENT CLASSIFICATION

E03D WATER-CLOSETS OR URINALS WITH FLUSHING DEVICES; FLUSHING VALVES THEREFOR

1/00	Water flushing devices with cisterns; {Setting up a range of flushing devices or water-closets; Combinations of several flushing devices}	1/18	. . Cisterns empty when not in action, {e.g. with pressure tanks, with swivel-mounted cisterns}
1/003	. {Cisterns in combination with wash-basins, urinals, or the like (domestic plumbing installations E03C)}	1/183	. . . {with bell or tube siphons}
1/006	. {Realisations of and provisions for preventing "sweating" of cisterns}	1/186	. . . {with flushing valves}
1/01	. Shape or selection of material for flushing cisterns	1/20	. . Cisterns with tiltably-mounted containers {(for operation, e.g. by the seat E03D 5/04)}
1/012	. . Details of shape of cisterns, e.g. for connecting to wall, for supporting or connecting flushing-device actuators {(mounting frames with incorporated cisterns E03D 11/146)}	1/22	. . Twin or multiple flushing cisterns
1/0125	. . . {of built-in cisterns}	1/24	. Low-level flushing systems
1/02	. High-level flushing systems	1/26	. . Bowl with flushing cistern mounted on the rearwardly extending end of the bowl (shape or material of the cistern E03D 1/01; constructional features of the bowl E03D 11/02 - E03D 11/12)
1/025	. . {Cisterns with floats actuating the flushing}	1/263	. . . {provided with a bell or tube siphon}
1/04	. . Cisterns with bell siphons	1/266	. . . {exclusively provided with flushing valves as flushing mechanisms}
1/05	. . . with movable siphon bells	1/28	. . Bowl integral with the flushing cistern
1/053	. . . . {which are pushed upwards by means of own buoyancy, springs, counterweights, or the like}	1/283	. . . {provided with a bell or tube siphon}
1/056	. . . . {providing an air lock}	1/286	. . . {provided with flushing valves}
1/06	. . Cisterns with tube siphons	1/30	. Valves for high or low level cisterns; Their arrangement (inlet valves, valves in general F16K) {Flushing mechanisms in the cistern, optionally with provisions for a pre- or a post- flushing and for cutting off the flushing mechanism in case of leakage (flushing valves E03D 1/142, E03D 1/186, E03D 1/266, E03D 1/286)}
1/07	. . . with movable or deformable siphon tubes	1/302	. . {with valves kept in open position by means of air or water pressure or by vacuum}
1/08	. . . Siphon action initiated by air or water pressure {actuating mechanisms therefor E03D 5/024}	1/304	. . {with valves with own buoyancy}
1/082	. . . . {in tube siphons}	1/306	. . . {with articulated valves}
1/085	. . . . . {by injection of air or water in the short leg of the siphon}	1/308	. . {with articulated valves (E03D 1/306 takes precedence)}
1/087	. . . . . {by pump, valve, or the like, in the short leg of the siphon or a vacuum pump in the long leg of the siphon}	1/32	. . Arrangement of inlet valves (devices for reducing noise E03D 9/14 {noise-reducing means E03D 11/00})
1/10	. . . Siphon action initiated by raising the water level in the cistern, e.g. by means of displacement members	1/33	. . Adaptations or arrangements of floats (actuating-floats in general F16K 33/00)
1/105	. . . . {in cisterns with tube siphons}	1/34	. . Flushing valves for outlets; Arrangement of outlet valves
1/12	. . . Siphon action initiated by outlet of air	1/35	. . . Flushing valves having buoyancy
1/125	. . . . {in cisterns with tube siphons}	1/36	. . Associated working of inlet and outlet valves
1/14	. . Cisterns discharging variable quantities of water (twin or multiple flushing cisterns E03D 1/22; flushing devices operated by pressure of the water supply system and discharging variable quantities of water E03D 3/12) {also cisterns with bell siphons in combination with flushing valves}	1/38	. Adaptations or arrangements of flushing pipes (noise-absorbing means in pipe systems F16L 55/00 {noise-reducing means in the flushing mechanism not in combination with flushing valves E03D 11/00; provisions in the flushing pipe for evacuating leakage water from the cistern})
1/141	. . . {in cisterns with tube siphons and with tube siphons in combination with flushing valves}	3/00	Flushing devices operated by pressure of the water supply system {flushing valves not connected to the water-supply main, also if air is blown in the water seal for a quick flushing}
1/142	. . . {in cisterns with flushing valves}	3/02	. Self-closing flushing valves (self-closing valves in general F16K 21/04)
1/144	. . . . {having a single flush outlet and an additional float for delaying the valve closure}	3/04	. . with piston valve and pressure chamber for retarding the valve-closing movement
1/145	. . . . {having multiple flush outlets}	3/06	. . with diaphragm valve and pressure chamber for retarding the valve-closing movement
2001/147	. . . {having provisions for active interruption of flushing}		
2001/148	. . . . {with means to prevent premature closing of flushing valve}		
1/16	. . Cisterns for periodical discharge		
1/165	. . . {with bell or tube siphons}		

3/08	• • with other retarding devices	9/00	Sanitary or other accessories for lavatories (hand tools for cleaning the toilets bowl A47K 11/10; seats or covers for closets A47K 13/00; body supports, other than seats for closets A47K 17/02; devices for preventing contamination of drinking-water pipes E03C 1/10) {Devices for cleaning or disinfecting the toilet room or the toilet bowl; Devices for eliminating smells (cleaning, disinfecting or deodorising the seat A47K 13/30)}
3/10	• Flushing devices with pressure-operated reservoir, e.g. air chamber	9/002	• {Automatic cleaning devices}
3/12	• Flushing devices discharging variable quantities of water (flushing cisterns discharging variable quantities of water E03D 1/14)	9/005	• {Devices adding disinfecting or deodorising agents to the bowl}
5/00	Special constructions of flushing devices (in motor vehicles or trailers B60R 15/00; in railway carriages B61D 35/00; in ships B63B 29/14; in aircraft B64D 11/02), {e.g. closed flushing system}	9/007	• {Devices for eliminating smells by diffusing deodorants in lavatories}
5/003	• {Grey water flushing systems}	9/02	• Devices adding a disinfecting, deodorising, or cleaning agent to the water while flushing (apparatus for disinfection A61L 2/00 ; treatment of water in general C02F)
5/006	• • {Constructional details of cisterns for using greywater}	9/022	• • {consisting of solid substances introduced in the bowl or the supply line}
5/01	• using flushing pumps	2009/024	• • {using a solid substance}
5/012	• combined with movable closure elements in the bowl outlet (bowls with closure elements between bottom or outlet and outlet pipe E03D 11/10)	2009/026	• • {using a gel-form substance}
5/014	• • with devices for separate removal of liquids and solids	2009/028	• • {using a liquid substance}
5/016	• with recirculation of bowl-cleaning fluid	9/03	• • consisting of a separate container with an outlet through which the agent is introduced into the flushing water, e.g. by suction; {Devices for agents in direct contact with flushing water}
5/02	• operated mechanically or hydraulically (E03D 5/01 , E03D 5/12 take precedence) {(or pneumatically) also details such as push buttons, levers and pull-card therefor}	9/031	• • • {Devices connected to or dispensing into the flushing pipe}
5/022	• • {Operating automatically (E03D 5/10 takes precedence)}	9/032	• • • {Devices connected to or dispensing into the bowl}
5/024	• • {Operated hydraulically or pneumatically}	9/033	• • • {Devices placed inside or dispensing into the cistern}
5/026	• • {Devices preventing overflow or locks inhibiting the use of the flushing system (devices preventing overflow of the bowl contents and seals for the bowl outlet E03D 11/00); Devices preventing sucking-up of sealing and flushing water}	9/035	• • • • {Devices connected to the actuation mechanism (E03D 9/036 takes precedence)}
5/028	• • {Pusher plates and actuating mechanisms for built-in cisterns}	9/036	• • • • {Scoop-like devices}
5/04	• • directly by the seat or cover {combined with devices for opening and closing shutters in the bowl outlet and/or with devices for raising and lowering seat or cover; Raising or lowering seat and/or cover by flushing or by the flushing mechanism}	9/037	• • • • {Active dispensers, i.e. comprising a moving dosing element (E03D 9/035 takes precedence)}
5/06	• • directly by the door	9/038	• • • • {Passive dispensers, i.e. without moving parts}
5/08	• • directly by the foot {combined with devices for opening or closing shutters in the bowl outlet and/or with devices for raising or lowering seat and cover and/or for swiveling the bowl}	9/04	• Special arrangement or operation of ventilating devices (ventilating rooms in general F24F)
5/09	• • directly by the hand	9/05	• • ventilating the bowl
5/092	• • • the flushing element, e.g. siphon bell, being actuated through a lever	9/052	• • • using incorporated fans
5/094	• • • the flushing element, e.g. siphon bell, being actuated through a cable, chain or the like	9/06	• Auxiliary chambers with water connection to the flushing pipe and adapted to receive utensils for bowl-cleaning, e.g. brushes
5/10	• operated electrically (E03D 5/01 , E03D 5/12 take precedence), {e.g. by a photo-cell; also combined with devices for opening or closing shutters in the bowl outlet and/or with devices for raising/or lowering seat and cover and/or for swiveling the bowl}	9/08	• Devices in the bowl producing upwardly-directed sprays; Modifications of the bowl for use with such devices (showers A47K 3/28 ; bathing devices for special therapeutic or hygienic purposes A61H 33/00 , for specific parts of the body A61H 35/00); {Bidets; Combinations of bowls with urinals or bidets; Hot-air or other devices mounted in or on the bowl, urinal or bidet for cleaning or disinfecting}
5/105	• • {touchless, e.g. using sensors}	9/085	• • {Hand-held spray heads for bidet use or for cleaning the bowl}
5/12	• discharging periodically (high-level cisterns for periodical discharge E03D 1/16)	9/10	• Waste-disintegrating apparatus combined with the bowl {(special flushing devices E03D 5/00)}
7/00	Wheeled lavatories (wheeled closets without flushing A47K 11/00; construction of land vehicles B62)	9/12	• Means to prevent freezing of lavatories

9/14	• Noise-reducing means combined with flushing valves (noise-absorbing means in pipe systems F16L 55/00 {if not in combination with flushing valves E03D 11/00 ; noise-reducing means in valves in general F16K 47/00 })		
9/16	• Water pressure regulating means in flushing pipes		
11/00	Other component parts of water-closets (pipe-joints or couplings in general F16L) {, e.g. noise-reducing means in the flushing system (noise-reducing means in combination with flushing valves E03D 9/14), flushing pipes mounted in the bowl, seals for the bowl outlet, devices preventing overflow of the bowl contents; devices forming a water seal in the bowl after flushing, devices eliminating obstructions in the bowl outlet or preventing backflow of water and excrements from the waterpipe}		
11/02	• Water-closet bowls (auxiliary chambers with connections to flushing water for bowl-cleaning utensils E03D 9/06 ; modified for using upwardly-directed sprays E03D 9/08 ; seats or covers A47K 13/00) {Bowls with a double odour seal optionally with provisions for a good siphonic action; siphons as part of the bowl (parts or details of bowls E03D 11/13)}		
11/025	• . {Combined with wash-basins, urinals, flushing devices for chamber-pots, bed-pans, or the like}		
11/04	• . Bowls of flat shape with only slightly inclined bottom {Squat-type closets}		
11/06	• . Bowls with downwardly-extending flanges {for the sake of flushing}		
11/08	• . Bowls with means producing a flushing water swirl		
11/10	• . Bowls with closure elements provided between bottom or outlet and the outlet pipe; Bowls with pivotally supported inserts		
11/11	• . Bowls combined with a reservoir, e.g. containing apparatus for disinfecting or for disintegrating		
11/12	• Swivel-mounted bowls, e.g. for use in restricted spaces {slidably or movably mounted bowls; combinations with flushing and disinfecting devices actuated by the swiveling or sliding movement of the bowl}		
11/125	• . {Height adjustable bowls}		
11/13	• Parts or details of bowls; Special adaptations of pipe joints or couplings for use with bowls {, e.g. provisions in bowl construction preventing backflow of waste-water from the bowl in the flushing pipe or cistern, provisions for a secondary flushing, for noise-reducing}		
11/135	• . {Supports for bowls}		
11/14	• . Means for connecting the bowl to the wall, e.g. to a wall outlet		
11/143	• . . {Mounting frames for toilets and urinals}		
11/146	• . . . {with incorporated cistern (wall built-in flushing cisterns, connecting a cistern to the wall E03D 1/012)}		
11/16	• . Means for connecting the bowl to the floor, e.g. to a floor outlet		
11/17	• . Means for connecting the bowl to the flushing pipe		
11/18	• Siphons (for pipes in general F16L 43/00 , F16L 45/00 {if as part of the bowl E03D 11/02 ; connecting the siphon to the bowl})		
		13/00	Urinals (without flushing devices A47K 11/00) {Means for connecting the urinal to the flushing pipe and the wastepipe; Splashing shields for urinals}
		13/002	• {intended for use by women}
		13/005	• {Accessories specially adapted for urinals}
		13/007	• {Waterless or low-flush urinals}; Accessories therefor (siphons E03C 1/281)
		2201/00	Details and methods of use for water closets and urinals not otherwise provided for
		2201/20	• Noise reduction features
		2201/30	• Water injection in siphon for enhancing flushing
		2201/40	• Devices for distribution of flush water inside the bowl