

Search history

Search 1: SFT=(((drain w3 grate) and (webbing or open*)))) (Results 507)
Search 2: 1 and PD<20140521 (Results 439)
Search 3: 2 and CPC=(E03F5/06) (Results 24)

Title: FINISH RIMS FOR SURFACE DRAINS

Abstract: (Claim 1) I claim: In a structure of the class described having a hollow cast metal body to be installed within a floor structure, a peripheral rim on said body defining an inlet, a peripheral body side wall extending downward from said inlet and having an outer face formed with fastener receiving means, the combination therewith of a removable rigid finish ring overlying said body peripheral rim in substantially vertical alignment with the inner peripheral edge of said rim, a rigid depending portion on said finish ring enclosing the peripheral body side wall, and spaced ductile extensions on said depending portion for locking engagement with said body fastener receiving means.

Classifications:

International (IPC 8-9): E03F5/04 E03F5/06

E04D13/04 (Advanced/Invention);

E03F5/04 E03F5/06 E04D13/04 (Core/Invention)

International (IPC 1-7): E03F5/06 E04D13/04

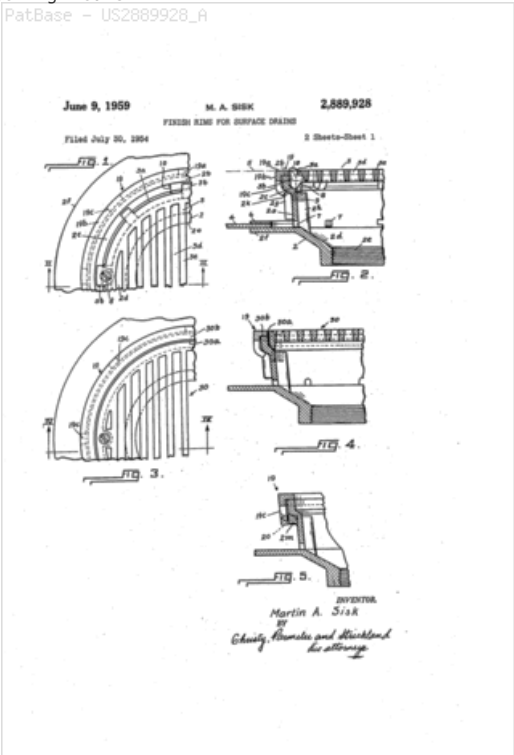
CPC: E03F5/0409 E03F5/0407 E03F5/06 E04D13/0409

E04D2013/0413

European: E03F5/04 E03F5/04D E03F5/04D3 E03F5/06

E04D13/04B20 E04D13/04B20B

US: 210/163 4/292 4/679



Family:

Publication number	Publication date	Application number	Application date
US2889928 A	19590609	US19540446696	19540730

Priority:

US19540446696 19540730

Probable Assignee:

SISK LULU E

Assignee(s): (std):

SISK LULU E

Inventor(s): (std):

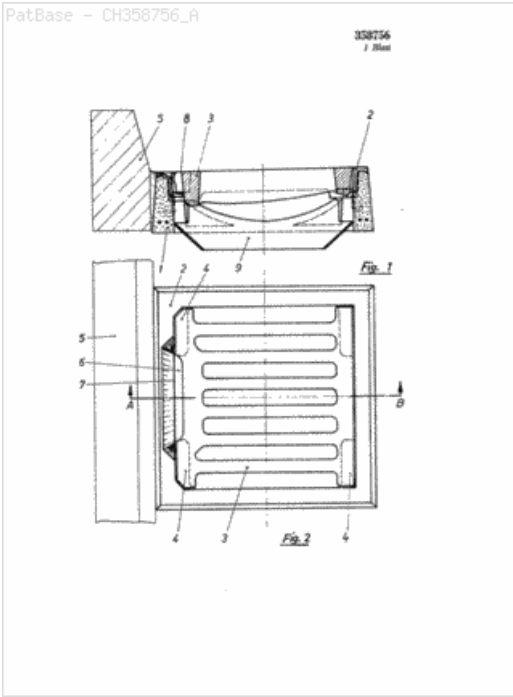
SISK LULU E

Title: AUFSATZ FUER STRASSENABLAEUFE TOWER FOR STRASSENABLAEUFE (Machine translation)

Abstract: Source: CH358756A [DE] (Claim 1) 1.PATENTANSPRUCH Aufsatz in Pultform fuer Strassenablaeufer mit im Aufsatzrahmen einlegbarem und an den vier Ecken mittels Auflagern unterstuetztem Rost, dadurch ge kennzeichnet, dass der Rost zwischen den Auflagern (4) an der Bordsteinseite, parallel zur Bordseite (5), einen Durchbruch (6) bis mindestens auf die Auflager- hoehe besitzt und der Rahmen (2) in etwa Breite des Durchbruchs (6) in Richtung auf den Durchbruch (6) abgeschraegt ist.

Machine translation: (Claim 1) 1.PATENTANSPRUCH essay in panel form for Strassenablaeufer with the collars inserted and characterized at the four corners by means of supports supports grate, wherein that the rust between the supports (4) on the curb side, parallel to the port side (5), a breakthrough (6) until at least the height-owns and supports the frame (2) in approximately the width of the aperture (6) in the direction of the breakthrough (6 slanted).

Classifications:
International (IPC 8-9): E03F5/046 E03F5/06 (Advanced/Invention);
E03F5/04 E03F5/06 (Core/Invention)
International (IPC 1-7): E03F5/06
CPC: E03F5/046 E03F5/06
European: E03F5/046 E03F5/06



Family:

Publication number	Publication date	Application number	Application date
CH358756 A	19611130		19580109

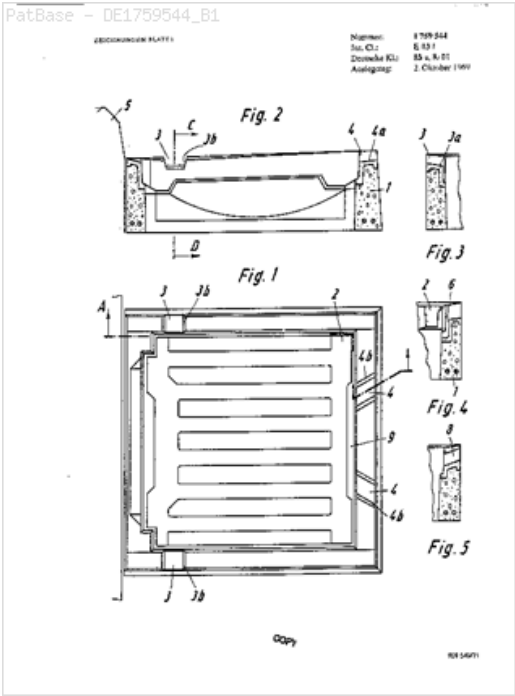
Priority:
19570207

Probable Assignee: PASSAVANT WERKE
Assignee(s): (std): PASSAVANT WERKE
Inventor(s): (std): ZICHT

Title: Strassenablauf

Abstract: Source: CH482075A [DE] [Source: Claim 1] 1. Strassenablauf nach Patentanspruch, dadurch gekennzeichnet, dass die Einlaufaussparungen als nach oben offene Rinnen (3,) ausgebildet sind. ss **Machine translation:** [Source: claim 1] Street 1, expiration of patent claim, characterised by the fact that the inlet slots as **open** top tray (3) are trained. ss

Classifications:
International (ipc 8-9): E02D29/14 E03F5/06 (Advanced/Invention);
E02D29/14 E03F5/06 (Core/Invention)
International (ipc 1-7): E02D29/14 E03F5/00 E03F5/04
CPC: E02D29/14 E03F5/06
European: E02D29/14 E03F5/06



Family:

Publication number	Publication date	Application number	Application date
AT290408 B	19710611	AT19690004012	19690425
CH482075 A	19691130	CH19690006301	19690425
DE1759544 B1	19691002	DE19681759544	19680513
FR1597206 A	19700622		19681227

Priority:

DE19671759544 19680513 DE19681759544 19680513

Probable Assignee: BUDERUS SCHE EISENWERKE WETZLA

Assignee(s): (std): BUDERUS SCHE EISENWERKE WETZLA ; PASSAVANT WERKE ; BUDERUS EISENWERK

Assignee(s): BUDERUS SCHE EISENWERKE ; PASSAVANT WERKE MICHELbacher HUETTE U BUDERUS SC ; PASSAVANT WERKE MICHELbacher HUETTE UND BUDERUS SCHE EISENWERKE WETZLAR

Inventor(s): (std): EICHELMANN DIPL ING HORST ; EICHELMANN HORST DIPL ING ; HORST NASSOIS ; WOLFGANG LIPKA

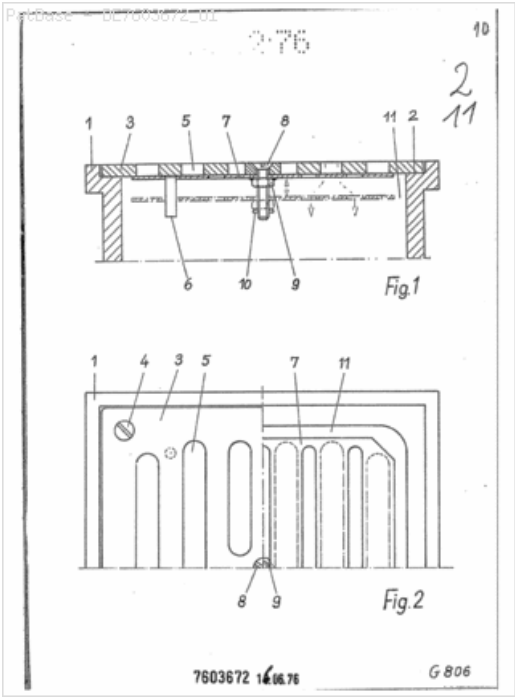
Inventor(s): LIPKA WOLFGANG ; NASSOIS HORST

Title: BODENABLAUF BOTTOM (Machine translation)

Abstract: Source: DE7603672U1 [DE] (Claim 1) 1. Schutzansprueche I. Bodenablauf mit einem das Ablaufgehaeuse abdeckenden Einlaufrost, gekennzeichnet durch einen zweiten Rost (7,17,27), der relativ zum ersten Rost (3, 23, 43) aus einer oeffnungsstellung, in der die Schlitze (5,15,25,35) beider Roste frei passierbar sind, in eine Schliesstellung verschiebbar ist, in der jeweils die Schlitze des Einlaufrostes durch die Stege des zweiten Rostes abgedeckt sind und umgekehrt.

Machine translation: (claim 1) 1 Schutzansprueche I floor drain with a Ablaufgehaeuse covering the intake screen, characterized by a second grid (7,17,27), which relative to the first grate (3, 23, 43) from an **opening** position in which the slots (5,15,25, 35) of the two gratings are freely passable, into a closed position is slidable in the slots of the intake grate covered by the webs of the second grid are respectively and vice versa.

Classifications:
International (IPC 8-9): E03F5/06 E03F7/06 (Advanced/Invention)
International (IPC 1-7): E03F5/06
CPC: E03F5/0404 E03F5/06 E03F7/06
European: E03F5/04C4 E03F5/06 E03F7/06



Family:

Publication number	Publication date	Application number	Application date
DE7603672 U1	19760616	DE19760003672U	19760210

Priority:
DE19760003672U 19760210

Probable Assignee: PASSAVANT WERKE

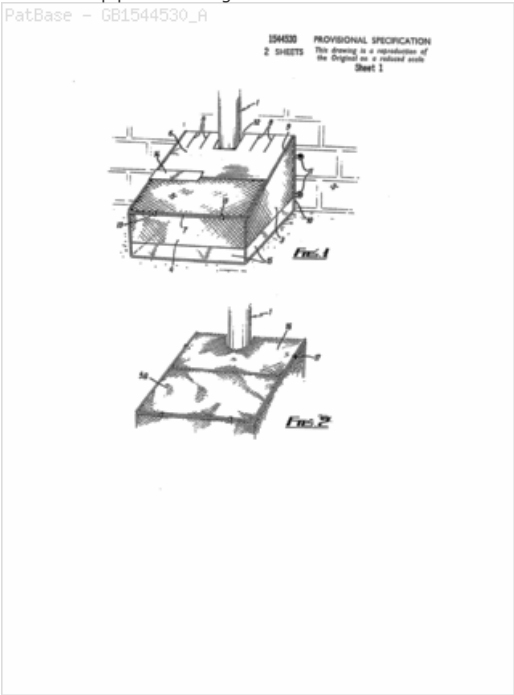
Assignee(s): (std): PASSAVANT WERKE

Assignee(s): PASSAVANT WERKE MICHELbacher HUETTE 6209 AARBERGEN

Title: COVERS FOR GRATES OF DRAIN GULLIES

Abstract: (Claim 1) 1. A grate of a drain gully set in a ground surface and provided with a cover, said cover having lower peripheral seating structure which seats around the periphery of the grate and an upper roof structure extending from said seating structure and projecting upwardly above the grate and the ground surface around the grate, said roof structure being at least in part of openwork form so as to permit passage of liquid therethrough and being arranged to fit around an outlet pipe discharging to the grate so as not to extend between the outlet end of such pipe and the grate.

Classifications:
International (IPC 8-9): E03F5/06 (Advanced/Invention)
International (IPC 1-7): E03F5/06
CPC: E03F5/0404 E03F5/06
European: E03F5/04C4 E03F5/06



Family:

Publication number	Publication date	Application number	Application date
GB1544530 A	19790419	GB19760017643	19770502

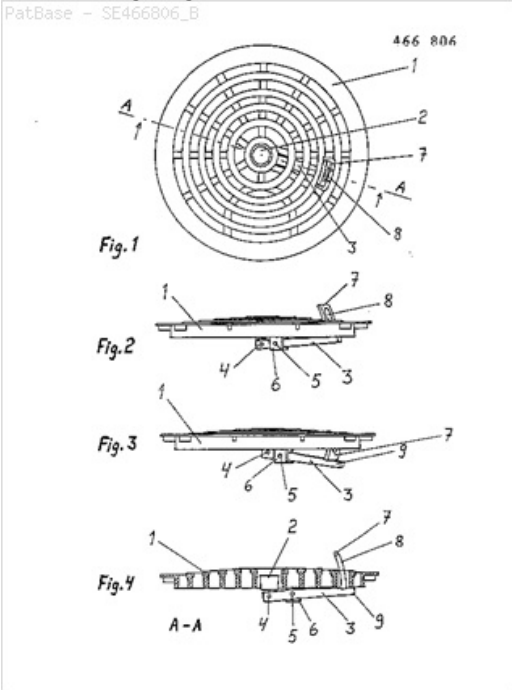
Priority:
GB19760017643 19770502

Probable Assignee: NEILD G
Assignee(s): (std): NEILD G

Title: A COVER GRATING FOR **DRAINS** WITH A PROJECTION FOR LIFTING THE GRATING

Abstract: A drain arrangement in which the cover grating 1 of the drain can be easily lifted for cleaning. When a push button or the like located at the centre point of the cover grating 1 is pressed down, a projection 7 emerges from the cover grating 7 as a result of the levering mechanism 3, 4, 5 situated under the cover grating. By pulling the said projection up, it is possible to release the cover grating for cleaning purposes. When the lifting mechanism 2, 3, 4, 5, 6, 7 is in the rest position, the projection 7 lies below the surface of the grating and there is no part above the grating surface.

Classifications:
International (IPC 8-9): E03F5/04 E03F5/06 (Advanced/Invention);
E03F5/04 E03F5/06 (Core/Invention);
E03F (Subclass/Invention)
International (IPC 1-7): E03F5/04 E03F5/06
CPC: E03F5/06
European: E03F5/06



Family:

Publication number	Publication date	Application number	Application date
DK292289 A	19900127	DK19890002922	19890614
DK292289 A0	19890614	DK19890002922	19890614
FI80932 B	19900430	FI19880003509	19880726
FI80932 C	19900810	FI19880003509	19880726
FI883509 A	19900127	FI19880003509	19880726
FI883509 A0	19880726	FI19880003509	19880726
NO166662 B	19910513	NO19890002902	19890714
NO166662 C	19910821	NO19890002902	19890714
NO892902 A	19900129	NO19890002902	19890714
NO892902 A0	19890714	NO19890002902	19890714
SE466806 B	19920406	SE19890002527	19890713
SE466806 C	19920730	SE19890002527	19890713
SE8902527 A	19900127	SE19890002527D	19890713
SE8902527 A0	19890713	SE19890002527	19890713
SE8902527 L	19900127	SE19890002527	19890713

Priority:

FI19880003509 19880726

Probable Assignee: SERMEKA OY
Assignee(s): (std): SERMEKA OY
Assignee(s): MERISER OY
Inventor(s): (std): KUUSINEN H ; KUUSINEN HANNU
Inventor(s): KUUSINEN HANNU KALEVI ; H KUUSINEN

Title: **Drain grate**

Abstract: A first wall with a plurality of **openings** to pass liquid and particulate matter, includes four arrangements of ribs on the back. The ribs are spaced from the **openings** to reduce surface contact with the liquid and particulate matter. The ribs of the first and second arrangements are of uniform height and intersect to form **open** ended boxes. The ribs of the third and fourth arrangements extend from ribs of the first and second arrangements respectively, each extended rib curving down from each side of a high point, to the rib from which it extends.

Classifications:

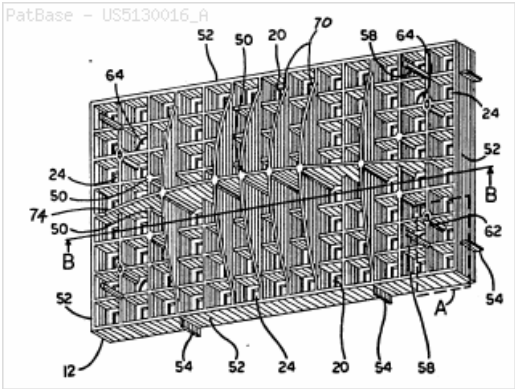
International (IPC 8-9): E03F5/06 (Advanced/Invention);
E03F5/06 (Core/Invention)

International (IPC 1-7): E03F5/06

CPC: E03F5/06

European: E03F5/06

US: 210/164 404/4



Family:

Publication number	Publication date	Application number	Application date
US5130016 A	19920714	US19910646114	19910128

Priority:

US19910646114 19910128

Probable Assignee: PETER GAVIN SPRAY TRUST UNDER AGREEMENT DATED MAY

Assignee(s): (std): GAVIN NORMAN W

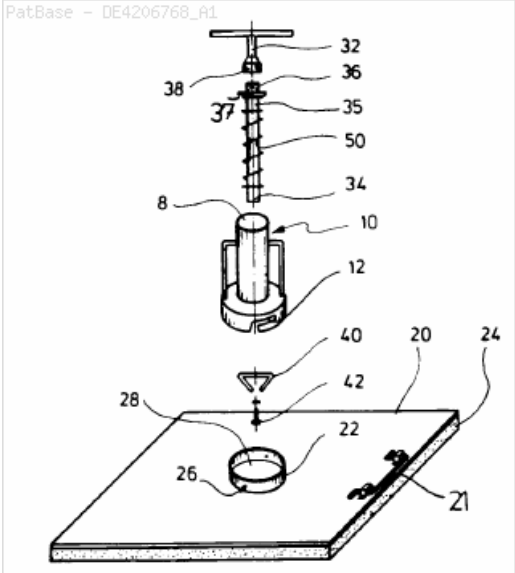
Assignee(s): PETER GAVIN SPRAY TRUST U ; PETER GAVIN SPRAY TRUST UNDER AGREEMENT DATED MAY ; WEBSTER BANK NATIONAL ASSOCIATION

Inventor(s): (std): GAVIN NORMAN W

Title: Emergency cover for road drains - has foam covered sealing plate with spring loaded locking handle

Abstract: A sealing device has a plate (20) with a lower compressible sealing layer (24) which is placed on the drain cover grid. A connector (35) with a catch (40) passes through a hole (28) in the plate (20) and through the drain cover grid. It is held by a tensioner (50) in a sleeve (10) to give a fluid tight seal. The sealing layer (24) can be an impregnated foam, pref. polyurethane foam impregnated with polyacrylate or paraffin. A square plate (20), typically 625 x 625mm, has a hole (28) surrounded by a flange (26) to which a sleeve (10) can be attached by a bayonet coupling (12). A catch (40) is pushed through the cover and locked by rotating the handle (32). The seal (24) is made fluid tight through the tension exerted by a spring (50). The handle (32) is removed and a cap is placed over the sleeve (10). The equipment has a holder (21) and is easily stored in vehicles which have to deal with emergencies. USE/ADVANTAGE - Allows road drains to be sealed in an emergency to avoid noxious materials spilled on the road entering the drains.

Classifications:
International (IPC 8-9): E03F5/06 E03F7/02 (Advanced/Invention)
International (IPC 1-7): E03F5/04 E04B1/92
CPC: E03F5/0404 E03F5/06 E03F7/02
European: E03F5/04C4 E03F5/06 E03F7/02



Family:

Publication number	Publication date	Application number	Application date
DE4206768 A1	19930923	DE19924206768	19920304

Priority:

DE19924206768 19920304

Probable Assignee: UMWELT TECHNIK GMBH MAGDEBURG

Assignee(s): (std): UMWELT TECHNIK GMBH MAGDEBURG

Assignee(s): UMWELT TECHNIK GMBH MAGDEBURG BUCKAU O 3011 MAGDEB ; UMWELT TECHNIK GMBH MAGDEBURG BUCKAU O 3011 MAGDEBURG DE

Inventor(s): (std): MUELLER H WILHELM

Inventor(s): MUELLER H WILHELM 5100 AACHEN DE

Title: TRENCH COVER ASSEMBLY AND METHOD

Abstract: A trench cover assembly (10) includes a cover member (12), a pair of opposed support members (14a, 14b) and means associated with said support members (14a, 14b) for holding said cover member (12) against vertical movement. The cover member (12) is formed with rabbets (34) along the top outer edge of opposing sides thereof. The support members (14a, 14b) are substantially C-shaped in cross section to provide a retaining area within which the cover member (12) is held against removal. The cover member (12) is slid into the end of the C-shaped support members (14a, 14b) to its functional position. The cover member (12) is secured against removal by closing the ends of the support members (14a, 14b). The upper horizontal leg (18a, 18b) of the C-shaped support members (14a, 14b) prevents the grate (12) from being lifted away. In an alternate embodiment, the upper horizontal leg (18a, 18b) of one of the support members (14a, 14b) includes a gap of length greater than the longitudinal length of the cover member (12). During assembly, the cover member (12) is passed through the gap and positioned to rest within the retaining areas of the support members (14a, 14b). A flat bar is then welded to the upper horizontal leg (18a, 18b) to eliminate the gap. In another alternate embodiment, one of the support members (14a, 14b) is formed as an angle iron. A vertical post is fixedly attached to a vertical rail of the angle iron. A horizontal plate is removably attached to the vertical post to overlie the horizontal rail of the angle iron and form an upper horizontal leg to secure the cover member (12) against lifting.

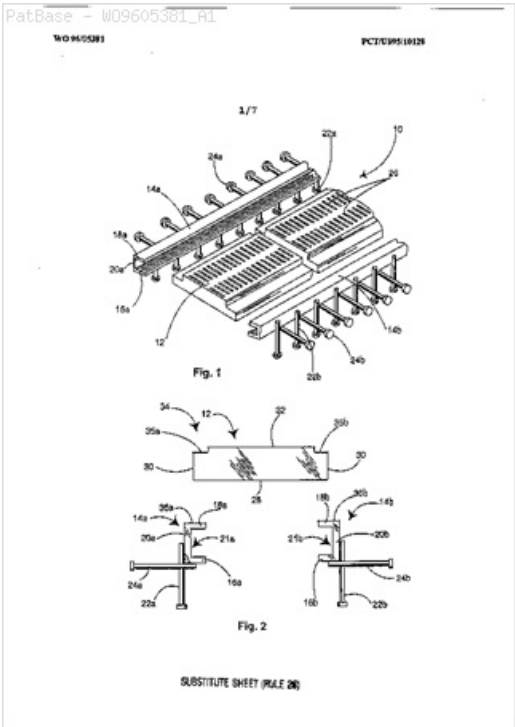
Classifications:

International (IPC 8-9): E01C11/22 E01C19/50 E03F3/04 E03F5/06 E04F19/10 (Advanced/Invention)

International (IPC 1-7): E01C11/22 E03F3/04 E03F5/06 E04F19/10

CPC: E01C19/506 E03F3/046 E03F5/06 E04F19/10

European: E01C19/50B3 E03F3/04D E03F5/06 E04F19/10



Family:

Publication number	Publication date	Application number	Application date
CA2173752 AA	19960409	CA19952173752	19950808
WO9605381 A1	19960222	WO1995US10128	19950808

Priority:

US19940287831 19940809 WO1995US10128 19950808

Probable Assignee: L AND S ENTERPRISES INC

Assignee(s): (std): L AND S ENTERPRISES INC

Assignee(s): STEGALL LANNIE L

Inventor(s): (std): STEGALL LANNIE L ; STEGALL LANNIE

Agent(s): BLAKE CASSELS AND GRAYDON LLP

Designated states: AT BE CA CH DE DK ES FR GB GR IE IT JP LU MC MX NL PT SE

Title: Manhole and drainage gullies

Abstract: A manhole has a main body defining a lowermost chamber with inlet and outlet pipes, an intermediate passage immediately above and of smaller diameter than the chamber, and an uppermost passage of smaller diameter than the intermediate passage. In addition to a manhole cover, a grating 26 provides a wastage trap in the intermediate passage. The grating 26 is supported on an annular flange 28 and is formed in two halves which are releasably locked together by a locking device 38. The position of the grating 26 is such as to normally obviate or mitigate unauthorised tampering therewith, but is positioned in fresh air and accessible to authorised personnel for maintenance. The grating 26 prevents raw materials and heavy objects reaching the lowermost chamber of the manhole. To allow authorised personnel further into the manhole, the device 38 can be unlocked and the separated halves of the grating 26 removed from the uppermost passage or moved to a non-obstructing location in the latter. A vertical perforated pipe may pass through the grating to allow water to pass down the manhole if the grating becomes blocked.

Classifications:

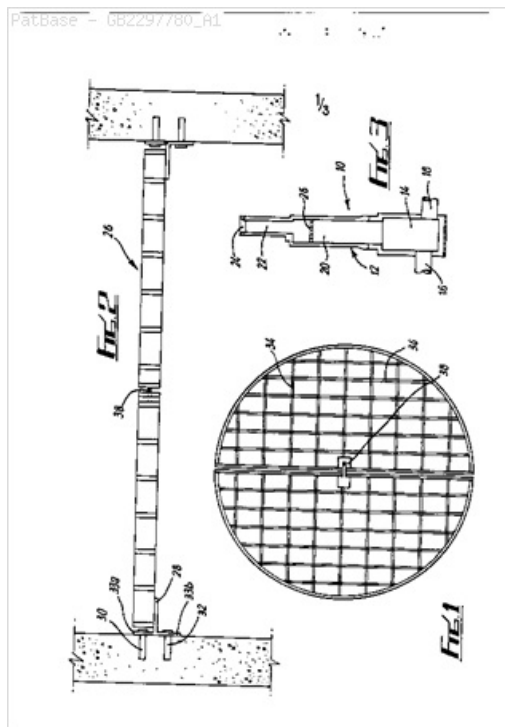
International (IPC 8-9): E02D29/12 E03F5/04

E03F5/06 (Advanced/Invention)

International (IPC 1-7): E01C 11/22 E03F5/06

CPC: E02D29/12 E03F5/0401 E03F5/06 E03F2005/066

European: E02D29/12 E03F5/04 E03F5/04C E03F5/06 P03F5/06H



Family:

Publication number	Publication date	Application number	Application date
GB2297780 A1	19960814	GB19950002338	19950207
GB9502338 A0	19950329	GB19950002338	19950207

Priority:

GB19950002338 19950207

Probable Assignee:

AL ESSA ADEL H

Assignee(s): (std):

AL ESSA ADEL H ; AL ESSA ADEL HUSAIN

Assignee(s):

ADEL HUSAIN AL ESSA

Inventor(s): (std):

AL ESSA ADEL HUSAIN

Inventor(s):

ADEL HUSAIN AL ESSA

Title: Catch basin guard

Abstract: The invention relates to a catch basin face cover for preventing entry into a catch basin and subsequently a storm drain. The preferred embodiment provides a form fitting cover for catch basins being installed in new construction. Newly constructed catch basins are generally not connected into existing storm drains, and consequently, tend to fill with water and debris, or become home for stray animals. The present invention blocks the inlet of a catch basin deterring the entry of water, debris, animals and, most importantly, children. This deterrent increases the completion of new construction sites because the catch basin will need less cleaning and evacuating before coupling to the existing storm drain system. Once the construction is complete, the cover has preformed punch-outs that allow water entry into the storm drain but prevent solid contaminants from entering the system.

Classifications:

International (IPC 8-9): E03F1/00 E03F5/06

E03F7/02 (Advanced/Invention)

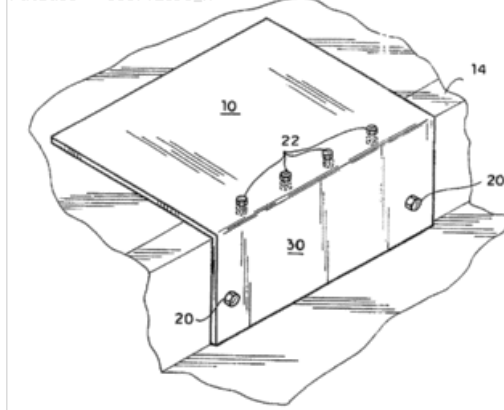
International (IPC 1-7): E01C11/22 E01F5/00 E03F5/06 G11B33/02

CPC: E03F1/00 E03F5/0404 E03F5/06 E03F7/02

European: E03F1/00 E03F5/04C4 E03F5/06 E03F7/02

US: 210/163 210/232 404/2 404/4 404/5

PatBase - US5702595_A



Family:

Publication number	Publication date	Application number	Application date
US5702595 A	19971230	US19960761609	19961206
US6017166 A	20000125	US19970001033	19971230

Priority:

US19950009026P 19951221

US19960761609 19961206

US19970001033 19971230

Probable Assignee:

MOSSBURG JR WILLIAM H

Assignee(s):

MOSSBURG JR WILLIAM H

Inventor(s): (std):

MOSSBURG JR WILLIAM H

Title: Mitred **grate** and **drain** cover

Abstract: A mitred **grate** and **drain** cover comprises a peripheral edge having an upper and lower surface and a substantially elliptical shape which defines a space, and a plurality of cross pieces within the space. Depending sidewalls extend from the lower surface of the peripheral edge, and are constructed with respect to the peripheral edge such that they are at an angle other than 90 Degrees to the peripheral edge. The sidewalls define a space for receiving a pipe.

Classifications:

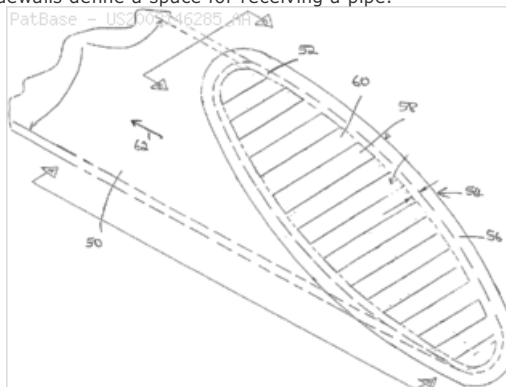
International (IPC 8-9): E01F5/00 E02B11/00 E02B11/02 E02B13/00 E03F1/00 E03F5/04 E03F5/06 E03F5/14 F16L55/115 (Advanced/Invention)

International (IPC 1-7): E02B11/00 E02B13/00 E03F1/00 E03F5/14

CPC: E03F5/0401 E03F5/04 E02B5/085 E01C11/223 E01F5/005 E03F5/06 E03F2005/061 E03F2005/063 F16L55/1152

European: E03F1/00 E03F5/04 E03F5/04C E03F5/06 F16L55/115B P03F5/06D

US: 210/163 210/164 210/460 405/125 405/127 405/36 405/36S 405/40 405/40P 405/41 405/41S 405/42 405/42S



Family:

Publication number	Publication date	Application number	Application date
US2002146285 AA	20021010	US20010826641	20010405
US2003210955 AA	20031113	US20030459872	20030612
US2005281617 AA	20051222	US20050212152	20050826
US2008050179 AA	20080228	US20070890449	20070806
US2014133915 AA	20140515	US20130949100	20130723
US2015167287 AA	20150618	US20140572530	20141216
US6595721 BB	20030722	US20010826641	20010405
US6942425 BB	20050913	US20030459872	20030612
US7252458 BB	20070807	US20050212152	20050826
US7695216 BB	20100413	US20070890449	20070806
US8496405 BA	20130730	US20100798564	20100407
US10012338 BB	20180703	US20130949100	20130723

Priority:

US20010826641 20010405 US20030459872 20030612 US20050212152 20050826
 US20070890449 20070806 US20100798564 20100407 US20130949100 20130723
 US20140572530 20141216

Probable Assignee: KINCHELOE JOHN M

Assignee(s): (std): KINCHELOE JOHN ; KINCHELOE JOHN M

Inventor(s): (std): KINCHELOE JOHN ; KINCHELOE JOHN M

Agent(s): COLIN P ABRAHAMS; ABRAHAMS COLIN P; COLIN P

Title: CLAMP COLLAR DESIGN

Abstract: A floor drain having a drain body that receives a rotatable frame with a grate. The orientation of the grate and frame about an axis of the drain body may be adjusted by rotating the frame relative to the drain body and clamping the frame in the desired orientation. Adjustments to the orientation of the grate and frame can be made to align the grate and frame with floor tiles or other flooring materials and with walls surrounding the floor drain.

Classifications:

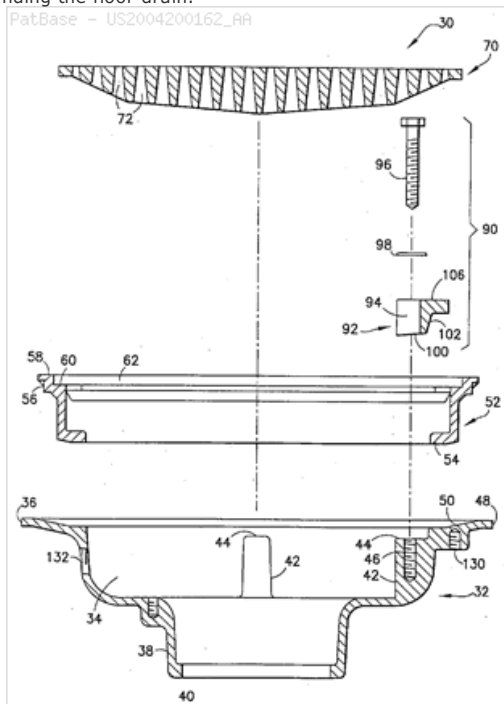
International (IPC 8-9): E03C1/12 E03F5/00 E03F5/04 E03F5/06 E03F5/14 E04B1/70 E04D13/04 (Advanced/Invention); E03C1/12 E03F5/00 E03F5/06 E03F5/14 E04B1/70 (Core/Invention)

International (IPC 1-7): E03C1/12 E03F5/00 E03F5/06

CPC: E03F5/0407 E03F5/06 Y10T29/49432

European: E03F5/06

US: 1/1 210/166 285/56 29/890.141 4/695 52/302.1 52/745.21

**Family:**

Publication number	Publication date	Application number	Application date
CA2461111 AA	20040917	CA20042461111	20040317
CA2461111 C	20081223	CA20042461111	20040317
US2004200162 AA	20041014	US20040799340	20040312
US2010126917 AA	20100527	US20090640197	20091217
US2015354195 AA	20151210	US20150735443	20150610
US7658043 BB	20100209	US20040799340	20040312
US9103107 BB	20150811	US20090640197	20091217
US9422709 BB	20160823	US20150735443	20150610

Priority:

US20030455260P 20030317 US20040799340 20040312 CA20042461111 20040317
US20090640197 20091217 US20150735443 20150610

Probable Assignee: ZURN IND INC

Assignee(s): (std): WROBLEWSKI DOUGLAS R ; ZURN IND INC ; ZURN IND LLC

Assignee(s): WROBLEWSKI DOUG ; Z U R N IND ; Z U R N IND LLC ; ZURN IND ; ZURN INDUSTRIES INC ; ZURN INDUSTRIES LLC ; ZURN INDUSTRIES LLC

Inventor(s): (std): WROBLEWSKI DOUG ; WROBLEWSKI DOUGLAS R

Agent(s): DIMOCK STRATTON LLP; WILSON LUE LLP; WEBB LAW FIRM PC; THE WEBB LAW FIRM; WEBB LAW FIRM; WEBB LAW FIRM; QUARLES AND BRADY LLP

Title: GRATE OF ROAD DRAINER WITH MULTI- ABILITY

Abstract: A drain grate may be provided by the roadside to drain sewage or rainwater. The drain grate may have a frame formed as a hollow parallelogram. The overall width of the hollow parallelogram-shaped frame may have the same overall width as a receiving area of the drain system for receiving the drain grate, thereby preventing the inflow of impurities in the receiving area. The drain grate may have a lever member to easily lift the drain grate. Two frames of the hollow parallelogram-shaped frames are formed inwardly slanted downwards, thereby allowing easy separation of the drain grate from the drain system. A plurality of support bars may be arranged parallel to a water flow direction to smoothly drain sewage and rainwater.

Classifications:

International (IPC 8-9): E03F5/06 (Advanced/Invention);

E03F5/06 (Advanced/Non-invention);

E03F5/06 (Core/Invention)

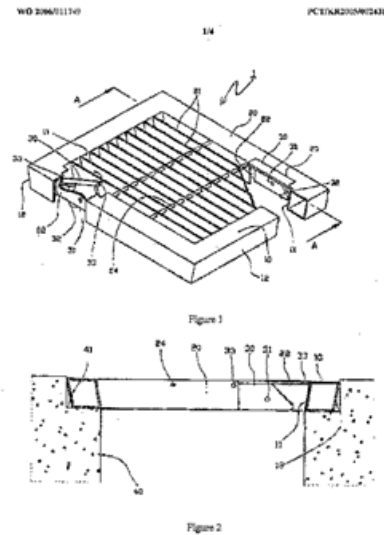
International (IPC 1-7): E03F5/06

CPC: Y02A30/68 E03F2005/063 E03F5/06 E03F5/0401 E03F5/101

E03F2005/065

European: E03F5/06 P03F5/06D

PatBase - WO06011749_A2



Family:

Publication number	Publication date	Application number	Application date
KR100495437 B1	20050616	KR20040071719	20040908
WO06011749 A2	20060202	WO2005KR02431	20050727
WO06011749 A3	20060511	WO2005KR02431	20050727

Priority:

KR20040021375U 20040727

Probable Assignee: CHUNG RA GLOBAL SYSTEM CO LTD

Assignee(s): (std): CHUNG RA GLOBAL SYSTEM CO LTD ; LEE JAEWON

Assignee(s): CHUNG RA GLOBAL SYSTEM CO

Inventor(s): (std): LEE JAE WON ; LEE JAEWON

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: SILANORDNING SAMT TILLSATSENHET FOER EN GOLVBRUNN

Abstract: The grate has an anchor part which is secured to the drain in order to form a watertight joint between the **grate** and **drain**. A cover is secured to the anchor part and can be removed to access the inside of the drain without destroying the watertight nature of the joint. - The grate comprises a round and substantially part containing drainage holes and fastener holes for securing it to a flat support surface on the drain and fixing the mat between the **grate** and **drain**.

Classifications:

International (IPC 8-9): E03F5/06 (Advanced/Invention);

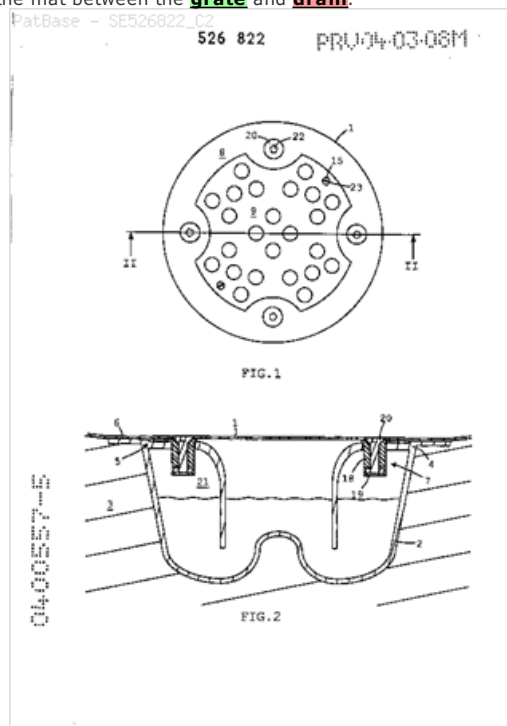
E03F E03F5/06 (Core/Invention);

E03F (Subclass/Invention)

International (IPC 1-7): E03F5/06

CPC: E03F5/06

European: E03F5/06



Family:

Publication number	Publication date	Application number	Application date
SE200400557 A	20050909	SE20040000557	20040308
SE200400557 A0	20040308	SE20040000557	20040308
SE200400557 L	20050909	SE20040000557	20040308
SE526822 C2	20051108	SE20040000557	20040308

Priority:

SE20040000557 20040308

Probable Assignee:

ANDERSSON JAN

Assignee(s): (std):

ANDERSSON JAN ; JAN ANDERSSON

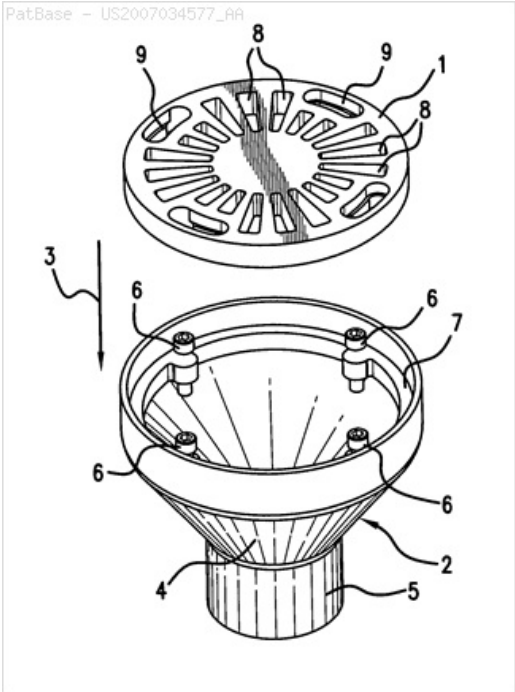
Inventor(s): (std):

JAN ANDERSSON ; ANDERSSON JAN

Title: SELF-LOCKING GRATE FOR DECK DRAIN FITTING

Abstract: A self-locking grate for a drain fitting body includes a plate having strainer holes and arcuate elongated openings near the periphery of the grate. Enlarged diameter portions of the elongated openings fit over studs connected to a drain, and the grate can be rotated to engage the studs, so that the grate is wedged to the drain fitting body without the use of screws. An inclined ledge, formed in the elongated openings, acts as a cam surface to wedge against the grate as it is rotated into the locked position. Despite the absence of screws, the grate is unlikely to loosen due to vibration or shock. A tool capable of simultaneously engaging distinct holes in the grate can be used to rotate the grate between the locked and unlocked positions. The invention also includes a kit for converting a conventional drain fitting and grate into a drain fitting and grate of the present invention.

Classifications:
International (IPC 8-9): E03F5/06 (Advanced/Invention); E03F5/06 (Core/Invention)
CPC: Y02A30/68 E03F5/06 E03F2005/063
European: E03F5/06 P03F5/06D
US: 210/163 210/767



Family:

Publication number	Publication date	Application number	Application date
US2007034577 AA	20070215	US20050200682	20050810

Priority:
US20050200682 20050810

Probable Assignee: BESTWELD INC
Assignee(s): (std): BESTWELD INC
Inventor(s): (std): BAYARD ROD ; COMMO CHARLES R ; OAKES FULTON D JR ; OSCAR WILLIAM
Inventor(s): OAKES FULTON D ; OAKES FULTON DJR ; OAKES FULTON ; COMMO CHARLES
Agent(s): WILLIAM H EILBERG

Title: ADJUSTABLE FLOOR DRAIN FOR SANITARY UNITS DISPOSITIF DE DRAINAGE AJUSTABLE POUR BLOCS SANITAI

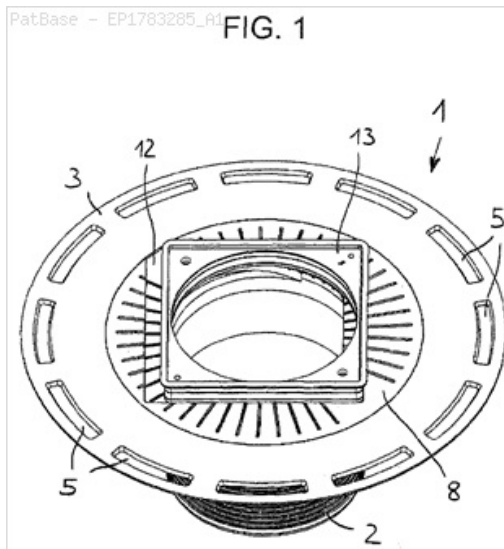
Abstract: The drain (1) has a flange (3) and a circular recess (4) having a tube end element (2). A disc shaped element (8) is inserted into the circular recess (4) and a framework (13) is provided disc shaped element. The disc shaped element has an eccentrically arranged passage (11) which extends upper-laterally with a recess (12) in which the framework is horizontally adjustable for different directions.

Classifications:

International (IPC 8-9): E03C1/22 E03F5/04 (Advanced/Invention);
E03C1/22 E03F5/04 (Core/Invention)

CPC: E03F5/06 E03F5/0408 E03F2005/0413 E03F2005/0415

European: E03F5/04 E03F5/04D2 E03F5/06 P03F5/04P2 P03F5/04P4



Family:

Publication number	Publication date	Application number	Application date
DE202005018839 U1	20070308	DE200520018839U	20051201
DK1783285 T3	20161003	DK20060123365T	20061102
EP1783285 A1	20070509	EP20060123365	20061102
EP1783285 B1	20160629	EP20060123365	20061102
ES2593333 T3	20161207	ES20060123365T	20061102
HU029631 T2	20170328	HU20060123365T	20061102
PL1783285 T3	20161230	PL20060123365T	20061102
PT1783285 T	20160928	PT20060123365T	20061102

Priority:

DE200520017220U 20051102 DE200520018839U 20051201

Probable Assignee: VIEGA GMBH AND CO KG

Assignee(s): (std): VIEGA GMBH AND CO KG

Inventor(s): (std): MARCUS POHLCHRISTOPH ; PATRICK SCHAEFER ; POHLCHRISTOPH MARCUS ; SCHAEFER PATRICK

Agent(s): COHAUSZ AND FLORACK; VALLEJO JUAN PEDRO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

Title: FLOOR DRAIN

Abstract: A floor drain includes a drain body, having a generally rectangular upper portion defining an inlet and a circular lower portion defining an outlet, a generally rectangular **drain grate** inserted into the inlet of the drain body, and a grout rim, supported by the drain body and surrounding the **drain grate**.

Classifications:

International (IPC 8-9): A47K1/00 A47K3/00 E03F5/04

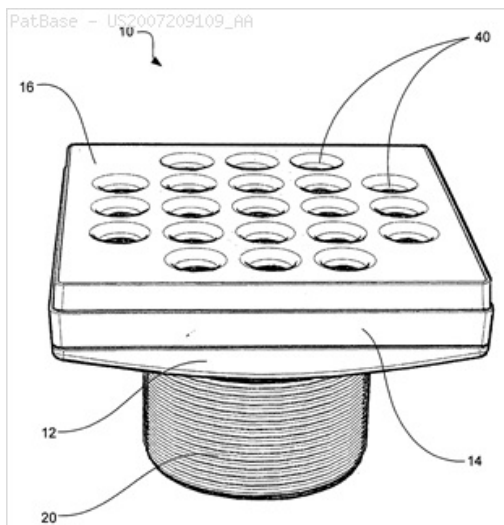
E03F5/14 (Advanced/Invention);

A47K3/00 E03F5/14 (Core/Invention)

CPC: E03F2005/0413 E03F5/06 E03F2005/0414 E03F5/0408

European: E03F5/04 E03F5/04D2 E03F5/06 P03F5/04P2 P03F5/04P3

US: 1/1 210/164 4/613 4/613P



Family:

Publication number	Publication date	Application number	Application date
US2007209109 AA	20070913	US20070716851	20070312
US2008277324 AA	20081113	US20080046352	20080311
US2010288685 AA	20101118	US20100772220	20100502
US9175464 BB	20151103	US20100772220	20100502
WO08112814 A1	20080918	WO2008US56731	20080312

Priority:

US20060781512P 20060310

US20070716851 20070312

US20080046352 20080311

US20100772220 20100502

Probable Assignee: MEYERS LAWRENCE G

Assignee(s): (std): MEYERS LAWRENCE G

Inventor(s): (std): MEYERS LAWRENCE G

Agent(s): DAVID R MCKINNEY PC; ZARIAN MIDGLEY AND JOHNSON PLLC; WORKMAN NYDEGGER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: FILTER ASSEMBLY FOR USE IN DRAINAGE SYSTEM

Abstract: A filter assembly for use in drainage systems to prevent the buildup of eroded materials such as soil, leaves and other debris is disclosed. The assembly includes a unitary frame and a filter media attached to the frame and is adapted to be retained within a component of a drainage sewer such as a catch basin. A porous material filter media such as a woven or non-woven geotextile allows for the flow of water through the filter while retaining debris or soil within the filter. The filter media extends into the basin to provide volume for the retained material without blocking the entire surface of filter.

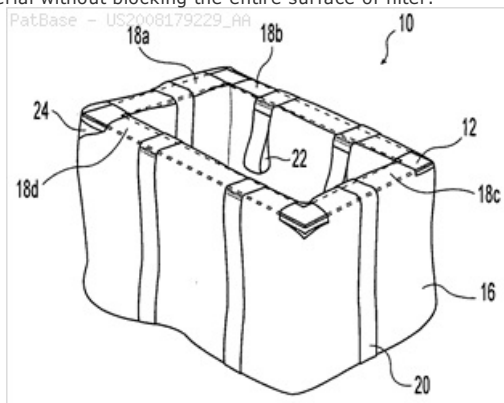
Classifications:

International (IPC 8-9): E03F1/00 E03F5/04 E03F5/046 E03F5/06
E03F5/14 (Advanced/Invention);
E03F5/06 (Core/Invention)

CPC: E03F5/06 E03F5/14 E03F1/00 E03F5/0404 E03F5/046

European: E03F1/00 E03F5/046 E03F5/04C4

US: 210/163 210/164 404/4 404/4S



Family:

Publication number	Publication date	Application number	Application date
US2008179229 AA	20080731	US20070700597	20070131
US2014124422 AA	20140508	US20140154827	20140114
US8652323 BB	20140218	US20070700597	20070131
US8980084 BB	20150317	US20140154827	20140114

Priority:

US20070700597 20070131 US20140154827 20140114

Probable Assignee: FRYE PAMELA A

Assignee(s): (std): DORSEY MICHAEL P ; FRYE RUSSELL N

Assignee(s): FRYE PAMELA A

Inventor(s): (std): DORSEY MICHAEL P

Agent(s): MILLER AND BARNES PLLC; JASON H; KREMBLAS AND FOSTER

Title: ELONGATED SHOWER DRAIN

Abstract: Elongated drain assemblies suitable for use in tiled shower stalls are described. Because the elongated drain is typically located at one edge of the shower stall proximate a stall wall and extends substantially the entire length of the wall, the installation of the associated shower pan is made much simpler. Specifically, the pan need only be sloped substantially in a single direction instead of four towards a prior art circular drain located at the center of a stall. The time and cost of creating a pan having a single slope is reduced over a more complex multi-sloped pan. Several different means for adjusting the height of the drain assemblies' top surfaces relative to the height of the tile floor are provided to adjust for tile floors of differing thicknesses.

Classifications:

International (IPC 8-9): A47K3/00 E03C1/12

E03C1/26 (Advanced/Invention);

A47K3/00 E03C1/12 (Core/Invention)

CPC: Y10T29/49826 Y02A30/68 A47K3/40 E03F5/04 E03F5/0408 E03F5/06

European: A47K3/40 E03F5/04 E03F5/04D2 E03F5/06

US: 29/428 29/428S 4/286 4/290 4/291 4/292 4/613 4/613P 4/679 4/679P 4/679S

PatBase - US2010162481_AA

Patent Application Publication Jul. 3, 2010 Sheet 1 of 13 US 2010/0162481 A1

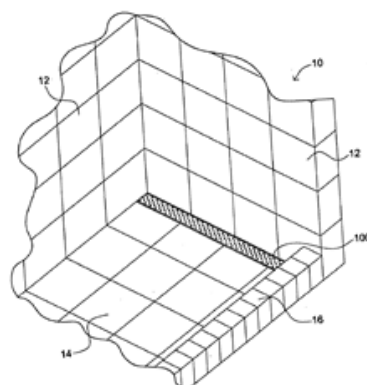


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
US2010162481 AA	20100701	US20080345485	20081229
US2011061161 AA	20110317	US20100881164	20100913
US8239974 BB	20120814	US20080345485	20081229
US8850633 BB	20141007	US20100881164	20100913

Priority:

US20080345485 20081229

US20090241873P 20090912

US20090241875P 20090912

US20100881164 20100913

Probable Assignee: QD HOLDINGS I LLC

Assignee(s): (std): ERLEBACH JOSEF

Assignee(s): QD HOLDINGS I LLC ; QUICKDRAIN USA LLC

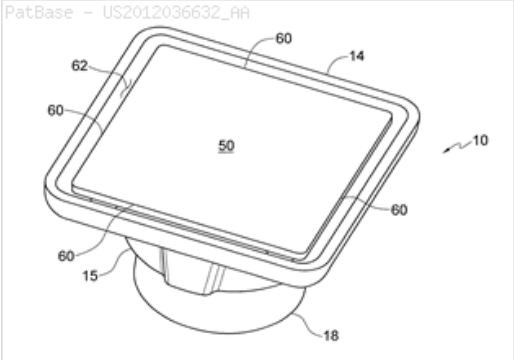
Inventor(s): (std): ERLEBACH JOSEF

Agent(s): LEYENDECKER AND LEMIRE LLC; LEYENDECKER AND LEMIRE; KURT

Title: KITS FROM WHICH MAY BE MANUFACTURED DRAINABLE STRUCTURES WITH CONCEALED DRAINS

Abstract: The present invention is directed to a drain and drain concealment structure and method of installation and use. The preferred embodiment of the invention comprises a drain body adapted to be connected to a conventional prefabricated waterproof shower or bath pan. The drain body may be connected to the shower pan by any suitable means, such as but not by way of limitation by being integrally molded therewith during manufacture of the pan, by connection post-manufacture or in situ in the field. Other embodiments do not require use of a prefabricated waterproof shower or bath pan. The preferred drain body is comprised of a waterproof structure having a floor section which defines a drain aperture, and a peripheral sidewall section. Structure for releasably attaching a drain cover to the drain body is employed. The cover, which is defined by a peripheral edge, is adapted to lie in registry with, and thereby cover, a portion of the drain body floor so as to conceal the drain aperture and as much of the drain body floor as is practicable. When connected to the drain body, the peripheral edge of the cover is spaced from the drain body sidewall so as to define a gap therebetween through which water may pass while flowing toward the drain aperture. In this way, water is permitted to exit the shower or bath without the drain aperture being visible. The drain apparatus of this invention is preferably utilized as part of a tileable shower or bath arrangement, whereby flooring material such as tile may be placed onto the shower or bath pan up to the peripheral sidewall of the drain body, and additional flooring may be placed upon the drain cover. In this way, the drain is fully operational yet unnoticeable. Interchangeable drain covers may be provided to permit alteration of the decorative appearance of the drain.

Classifications:
International (IPC 8-9): E03C 1/12 E03F5/04 (Advanced/Invention)
CPC: E03F5/0408 E03F5/06
European: E03F5/04D2 E03F5/06
US: 4/679 4/679P



Family:

Publication number	Publication date	Application number	Application date
US2012036632 AA	20120216	US20100853702	20100810
WO12021616 A2	20120216	WO2011US47246	20110810
WO12021616 A3	20120614	WO2011US47246	20110810

Priority:

US20100853702 20100810

Probable Assignee: COOK JOSEPH R

Assignee(s): (std): COOK JOSEPH R

Inventor(s): (std): COOK JOSEPH R

Agent(s): CROSBY KEVIN P

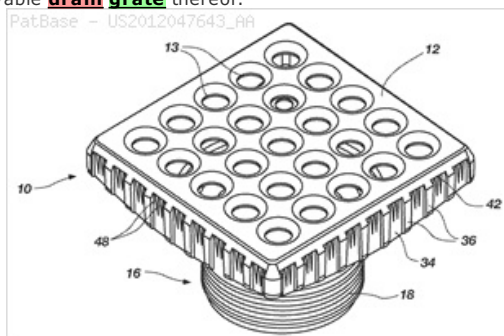
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: DEBRIS TRAP FOR A DRAIN

Abstract: A debris trap for a drain includes an annular rim, defining a center, with a plurality of radial prongs, extending from the rim toward the center, and oriented to catch debris in the drainage pathway. The debris trap is removably disposable within a drainage pathway of a drain body, below a removable **drain grate** thereof.

Classifications:

International (IPC 8-9): B01D35/02 B01D35/28 B23P19/00
 E03C1/26 E03C1/264 E03F5/04 E03F5/06 (Advanced/Invention)
CPC: E03F5/041 Y10T29/49815 B01D35/02 B01D35/28 E03F5/06
 E03F5/0408 E03C1/264 E03C1/26
European: E03C1/264 E03F5/04G
US: 1/1 210/163 210/164 29/426.1 29/426.100S 4/292 4/292P



Family:

Publication number	Publication date	Application number	Application date
US2012047643 AA	20120301	US20100862689	20100824
US2015361646 AA	20151217	US20150834626	20150825
US2017073950 AA	20170316	US20160361863	20161128
US9139989 BB	20150922	US20100862689	20100824
US9528252 BB	20161227	US20150834626	20150825
US10017926 BB	20180710	US20160361863	20161128

Priority:

US20100862689 20100824 US20150834626 20150825 US20160361863 20161128

Probable Assignee: MEYERS LAWRENCE G

Assignee(s): (std): MEYERS LAWRENCE G

Inventor(s): (std): MEYERS LAWRENCE G

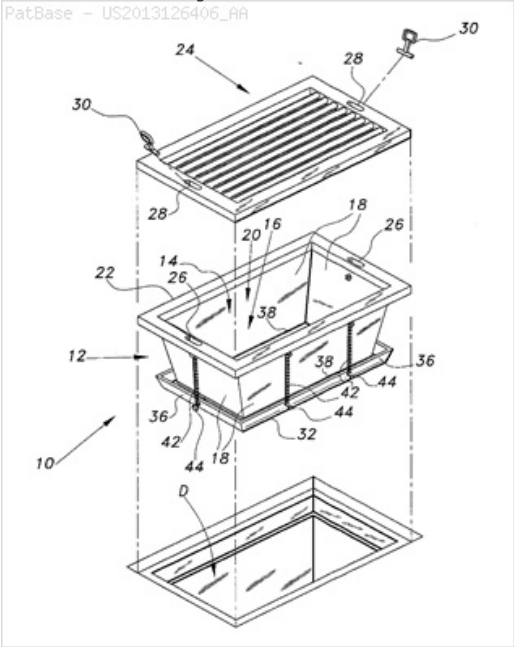
Agent(s): WORKMAN NYDEGGER; WORKMAN NYDGEGGER

Title: STORM DRAIN WITH WATER TRAP

Abstract: The storm drain with water trap is installed in the **opening** of a storm or sewer drain to close off the underlying drain channels and residual water therein from the **open** air, thus preventing escape of mold, mosquitoes, and other hazards into the air. The device has an insert having an **open** top and bottom. A shallow water trap pan is suspended below the insert. In dry conditions, the water trap contains little water, the relatively light weight of the trap and contained water allowing it to be lifted by springs against the bottom of the insert to form a seal. When runoff water flows into the drain, the greater amount of water and its weight draws the insert downward, extending the springs and **opening** a gap between the lower edge of the insert and the water trap pan to allow the runoff water to flow therethrough.

Classifications:

International (IPC 8-9): B01D35/02 E03F5/04 E03F5/06 E03F5/10 (Advanced/Invention)
CPC: E03F5/042 E03F5/06 E03F2005/0417 B01D35/02 B01D2221/12 E03F5/0405 E03F5/10 Y10T137/4456 Y10T137/6991
US: 137/247 137/363 210/116 210/163 210/164 210/170.03 404/4



Family:

Publication number	Publication date	Application number	Application date
US2013126406 AA	20130523	US20120682582	20121120
US8591729 BB	20131126	US20120682582	20121120

Priority:

US20110561903P 20111120 US20120682582 20121120

Probable Assignee:

ALQANEE JASEM M J

Assignee(s): (std):

ALQANEE JASEM M J

Assignee(s):

ALQANEE JASEM MJ

Inventor(s): (std):

ALQANEE JASEM M J

Inventor(s):

ALQANEE JASEM MJ

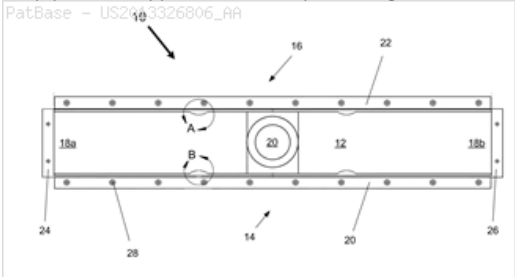
Agent(s):

RICHARD C

Title: TRENCH DRAIN

Abstract: A trench drain with a trench body and a grate for use with a flush-threshold or low-threshold shower. The trench body is rectangular, with a drain hole positioned in the bottom. Front and back flanges extend from the bottom of the front and back sides for an absolute flush installation of the trench drain to the shower body and the bathroom flooring. The trench body may extend under the shower walls on each side. A grate fits into the top of the trench body onto a lip or edge on the interior of the front and back sides. Protrusions may extend inward to help provide support and stability for the grate.

Classifications:
International (IPC 8-9): E03C1/12 E03C1/22 E03F5/04 E03F5/06 (Advanced/Invention); E03F5/06 (Advanced/Non-invention)
CPC: E03F5/0408 E03F2005/068 E03F5/06 Y10T29/49826
US: 29/428 4/613



Family:

Publication number	Publication date	Application number	Application date
US2013326806 AA	20131212	US20130912595	20130607
US2017211267 AA	20170727	US20170483693	20170410
US9617723 BB	20170411	US20130912595	20130607
WO13185030 A1	20131212	WO2013US44704	20130607

Priority:

US20120656668P 20120607 US20130912595 20130607 US20170483693 20170410

Probable Assignee: MIDWEST INDUSTRIAL LEASING LLC

Assignee(s): (std): MIDWEST IND LEASING LLC ; MILLARD RICHARD ; RICE WILL ; STONECIPHER SCOTT

Assignee(s): MIDWEST INDUSTRIAL LEASING LLC

Inventor(s): (std): MILLARD RICHARD ; RICE WILL ; STONECIPHER SCOTT

Agent(s): BAKER DONELSON; WAYNE EDWARD; RAMAGE W EDWARD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW