

Title (en)

Two-way barrier for preventing rats or other vermin from entering a sewage pipe system

Title (de)

Zwei-Wege-Sperre gegen das Eindringen von Ratten oder anderem Ungeziefer in ein Abwasserrohrsystem

Title (fr)

Barrière bidirectionnelle pour empêcher les rats ou autres animaux indésirables d'entrer dans un système de tuyau pour eaux usées

Publication

**EP 2113615 A1 20091104 (EN)**

Application

**EP 09389501 A 20090305**

Priority

DK PA200800327 A 20080305

Abstract (en)

The invention relates to a barrier for preventing rats or other vermin from entering a sewage pipe. The barrier comprises a support element (33) that is mountable within the pipe, and a first shutter (30) pivotally suspended within the support element (33) for rotation about a horizontal axis (32) and having a centre of gravity lying under the axis (32). The shutter (30) is pivotal between a first angular position (v) in which the first shutter is forming an acute angle with the direction of flow and at least substantially barring the aperture of the barrier, and a second angular position (w) in which the first shutter (30) is forming a second relatively smaller angle with the direction of flow thus keeping the aperture of the barrier at least partly open. Preferably, a second shutter (31) is placed upstream of a first shutter (30) and is pivotally suspended about a second axis and having a centre of gravity located under the second axis. The first shutter (30) can be suspended within the support element (33) in two different orientations such that the direction in which the barrier blocks vermin from passing may be changed according to the needs without changing the orientation of the support element (33).

IPC 8 full level

**E03F 7/06** (2006.01)

CPC (source: EP)

**E03F 7/06** (2013.01)

Citation (applicant)

- WO 9221830 A1 19921210 - JENSEN TORBEN [DK]
- WO 03069082 A1 20030821 - KRAGH ERNST [DK], et al
- DE 699005 C 19401121 - HENRY NOWAK
- EP 1826326 A2 20070829 - NORDISK INNOVATION APS [DK]

Citation (search report)

- [A] DE 699005 C 19401121 - HENRY NOWAK
- [A] EP 1826326 A2 20070829 - NORDISK INNOVATION APS [DK]
- [A] DE 4322260 A1 19950119 - RICHLING NORBERT [DE]
- [A] US 4356087 A 19821026 - MILES ROBERT A

Cited by

EP3792414A1; US2011272052A1; EP2685015A3; GB2491633A; GB2491633B; GB2588082A; GB2588082B; WO2019068301A1; EP2385179A1; WO2011158226A1; EP3739136A1; EP2868823A1; EP4086399A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**EP 2113615 A1 20091104; EP 2113615 B1 20110504;** AT E508230 T1 20110515; DE 602009001209 D1 20110616; DK 2113615 T3 20110815

DOCDB simple family (application)

**EP 09389501 A 20090305;** AT 09389501 T 20090305; DE 602009001209 T 20090305; DK 09389501 T 20090305