

Title (en)

DUAL-CHAMBER LIQUID RECEIVING AND CONTAINING DEVICE

Title (de)

DOPPELKAMMER-AUFNAHME- UND HALTEVORRICHTUNG

Title (fr)

DISPOSITIF DE RECEPTION ET DE STOCKAGE DE LIQUIDE A DOUBLE CHAMBRE

Publication

EP 1648291 A2 20060426 (EN)

Application

EP 04755688 A 20040615

Priority

- US 2004019680 W 20040615
- US 48378203 P 20030628
- US 49477303 P 20030813
- US 83440504 A 20040429
- US 84644304 A 20040514

Abstract (en)

[origin: WO2005003725A2] A dual-chamber device for receiving and containing a liquid, particularly urine, employs a generally cylindrical body having a detachable top cover and an internal, transverse, funnel-shaped wall. The transverse wall has a central circular orifice and divides the body into lower and upper chambers for respectively receiving and retaining forestream and mid-stream urine liquid samples. A floatable orifice stopper in the lower chamber is responsive to fore-stream liquid filling the lower chamber to a predetermined level for closing the orifice, so that subsequent, mid-stream urine liquid is received into the upper chamber. An annular float beneath the orifice stopper assures proper stopper closing of the orifice. A bottom cover has an upstanding stopper pushing column and a flexible, spring-like, annular web adjacent the cover periphery. When the urine liquid has been collected in the device and the device is pushed downwardly onto the bottom cover, the web flexes, causing the bottom cover column to force the stopper tightly into the orifice, and locks over center to positively lock the stopper into the orifice to prevent leakage between the two chambers. Other mechanisms, including a urine liquid released compression spring, a urine liquid swellable hydrophilic material, a urine liquid activated effervescent tablet, magnetic elements and urine liquid activated adhesive, are disclosed for positively locking the stopper into the orifice. A microscopic hole in the device body wall substantially above the predetermined urine level in the lower chamber vents air pressure from the lower chamber when the bottom cover is flexed to force the stopper into the orifice.

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