

Title (en)

METHOD AND APPARATUS FOR DISCHARGING CONTENTS OF SEALED CONTAINER

Publication

**EP 0348116 A3 19900905 (EN)**

Application

**EP 89306140 A 19890616**

Priority

US 20844788 A 19880620

Abstract (en)

[origin: EP0348116A2] A method and apparatus is disclosed for discharging the contents of a sealed container (10), such as a test tube, having a resilient closure (18). A plurality of tubes or needles (32, 38) are mounted in a socket or holder (50). The tubes needles (32, 38) puncture the closure (18) to establish fluid flow paths between the interior and exterior of the container (10). A pump (66) is positioned at one end (34) of the first fluid flow path (32), and a discharge tube (70) extends through the second fluid flow path (38) such that upon activating the pump (66), air or the like is introduced into the interior of the container (10) creating a pressure therein, in response to which fluid from the container (10) is discharged through the discharge tube (70) onto a specimen plate (88) or the like.

IPC 1-7

**G01N 1/10**; **B01L 3/02**

IPC 8 full level

**G01N 33/48** (2006.01); **B01L 99/00** (2010.01); **G01N 1/00** (2006.01)

CPC (source: EP)

**B01L 3/0293** (2013.01)

Citation (search report)

- [X] FR 1568072 A 19690523
- [A] US 4228831 A 19801021 - KERNS RALPH M
- [A] US 3985032 A 19761012 - AVAKIAN SOUREN
- [X] US 3872730 A 19750325 - RINGROSE MICHAEL ANDREW, et al
- [A] US 1669776 A 19280515 - VERNON OSBURN SYLVESTER
- [A] GB 506779 A 19390605 - HAROLD WILLIAM GARDNER

Cited by

EP0772997A3; US5354483A; US5249711A; US5322192A; US5555920A; US5211310A; US5413246A; EP0409650A3; US5400923A; US7100460B2; WO2005100945A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0348116 A2 19891227**; **EP 0348116 A3 19900905**; AU 3652289 A 19891221; AU 620105 B2 19920213; JP H0244251 A 19900214

DOCDB simple family (application)

**EP 89306140 A 19890616**; AU 3652289 A 19890616; JP 15664589 A 19890619