

## Title (en)

A METHOD AND AN APPARATUS FOR EMPTYING VARIOUS TYPES OF TRAYS FILLED WITH ROD LIKE ARTICLES OF THE TOBACCO INDUSTRY, AND CONVERTING UNIT DESIGNED TO CHANGE TRAY'S CONFIGURATION

## Title (de)

VERFAHREN UND VORRICHTUNG ZUM ENTLEEREN VERSCHIEDENER ARTEN VON SCHRAGEN, DIE MIT STABARTIGEN ARTIKELN DER TABAKINDUSTRIE GEFÜLLT SIND, UND UMWANDLUNGSEINHEIT ZUR ÄNDERUNG DER KONFIGURATION DER SCHRAGEN

## Title (fr)

PROCÉDÉ ET APPAREIL PERMETTANT DE VIDER DIVERS TYPES DE RÉCIPIENTS REMPLIS D'ARTICLES EN FORME DE TIGE DE L'INDUSTRIE DU TABAC ET UNITÉ DE CONVERSION DESTINÉE À CHANGER LA CONFIGURATION DU RÉCIPIENTS

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## Application

**EP 16179252 A 20160713**

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## Abstract (en)

An apparatus (1) for emptying of various types of trays (3, 13) for rod like articles (R) of the tobacco industry, the apparatus is provided with a filled tray station (2) of the first type or the second type, a turning unit (10) designed to turn the filled tray of the first type (13) or the second type (3), a lifting unit (11) designed to lift the turning unit (10), a station (23) for emptying of the filled tray of the first (13) or the second type (3), a station (25) for empty trays of the first or the second type, a control system (40) controlling the subassemblies of the apparatus. The apparatus (1) according to the invention is characterised by further comprising a converting unit (21, 35) being adapted to change the configuration of the tray of the first type (13) into a configuration corresponding to the configuration of the second type (3). The converting unit (21, 35) is adapted to change the configuration of the tray of the first type (13) into a configuration corresponding to the configuration of the tray of the second type (3) when the tray of the first type (13) is delivered for unloading, and to maintain the configuration of the tray of the second type (3) when the tray of the second type (3) is delivered for unloading. The object of the invention is also a converting unit (21, 35) and a tray emptying method using the apparatus (1) and the converting unit (21, 35).

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## Citation (applicant)

- EP 1118543 B1 20030611 - HAUNI MASCHINENBAU AG [DE]
- WO 2015033264 A1 20150312 - GD SPA [IT]
- GB 2043603 A 19801008 - GD SPA
- EP 1086628 B1 20060621 - HAUNI MASCHINENBAU AG [DE]
- US 3759408 A 19730918 - ROWLANDS T, et al
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- GB 2148853 A 19850605 - MOLINS PLC

## Citation (search report)

- [XDYI] EP 1118543 A1 20010725 - HAUNI MASCHINENBAU AG [DE]
- [XDI] WO 2015033264 A1 20150312 - GD SPA [IT]
- [YDA] EP 1086628 A2 20010328 - HAUNI MASCHINENBAU AG [DE]
- [AD] GB 2148853 A 19850605 - MOLINS PLC
- [A] EP 1308101 A1 20030507 - GD SPA [IT]

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