

Title (en)

RETRACTABLE GRIPPER DEVICE FOR GRIPPING HOLLOW BODIES WITHIN THE MOUTH THEREOF

Publication

EP 0013238 B1 19830803 (FR)

Application

EP 79401060 A 19791221

Priority

FR 7836190 A 19781222

Abstract (en)

[origin: ES487192A1] Apparatus is described for grasping hollow bodies, such as bottles, from the inside. It is particularly useful in protecting grasping equipment used in conjunction with bottle coating equipment. On a movable rod inside a housing are mounted a structure adapted to engage the rim of the bottle and grasping arms which can be inserted into the neck of the bottle. The rod is spring-biased toward a position in which the structure and the grasping arms are retained within the housing. To grasp a bottle, a force is applied to the rod against this spring-bias so as to urge the rod, the structure and the grasping arms toward the bottle. At an intermediate point on the outward stroke, the structure is released from the rod. If the structure engages the rim of the bottle after its release and before the outward stroke ends, the structure is prevented by a slider from moving back into the housing and relative movement between the rod and the structure causes the grasping arms to engage the inside of the bottle. If, however, no bottle is present, the structure is resecured to the rod toward the end of its outward stroke and on the return stroke of the rod the structure is returned to within the housing. As a result, the grasping arms and rim engaging structure do not remain outside the housing and are not coated with the coating when a bottle is not present.

IPC 1-7

B65B 21/12

IPC 8 full level

B25J 15/00 (2006.01); **B25J 15/08** (2006.01); **B65B 21/12** (2006.01); **F16B 2/04** (2006.01)

CPC (source: EP US)

B65B 21/12 (2013.01 - EP US)

Cited by

EP1677955A4; CN103753596A; CN106272490A

Designated contracting state (EPC)

AT BE CH DE GB IT LU NL SE

DOCDB simple family (publication)

EP 0013238 A1 19800709; **EP 0013238 B1 19830803**; AT E4379 T1 19830815; DE 2966039 D1 19830908; ES 487192 A1 19800916; FR 2444630 A1 19800718; FR 2444630 B1 19811120; JP S55150988 A 19801125; US 4291910 A 19810929

DOCDB simple family (application)

EP 79401060 A 19791221; AT 79401060 T 19791221; DE 2966039 T 19791221; ES 487192 A 19791221; FR 7836190 A 19781222; JP 16743679 A 19791222; US 10603879 A 19791221