

Title (en)
Retractable gripper device for gripping hollow bodies within the mouth thereof.

Title (de)
In die Öffnung eines Hohlkörpers einrastbare Greifvorrichtung.

Title (fr)
Dispositif de préhension éclipseable pour corps creux dans l'ouverture de ceux-ci.

Publication
EP 0013238 A1 19800709 (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.

Abstract (fr)
Le dispositif présente un organe (11a, 11b) qui pénètre dans le corps creux pour le saisir sans entrer en contact avec l'extérieur du corps creux et qui, en position de repos, c'est à-dire non chargé, est totalement éclipseé dans un fourreau (1). L'invention s'applique notamment à la préhension de récipients en verre par l'intérieur de leur col de façon à pouvoir les revêtir entièrement d'une couche de traitement.

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)

Citation (search report)
• FR 2315323 A1 19770121 - EMBALLAGE STE GLE POUR [FR]
• DE 1103229 B 19610323 - KRONSEDER HERMANN

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