

Title (en)  
Article handling apparatus.

Title (de)  
Gerät zum Handhaben von Gegenständen.

Title (fr)  
Appareil de manipulation d'objets.

Publication  
**EP 0048104 A1 19820324 (EN)**

Application  
**EP 81303965 A 19810828**

Priority  
US 18711580 A 19800915

Abstract (en)  
Article handling apparatus comprises one or more handling arms for performing operations on articles as those articles move continuously through a work station without slowing down or stopping. The operations that may be performed include direction changing with or without changes in the orientation of the articles, assembly, processing or wrapping. Each handling arm (54) is pivotally mounted on a first rotary member (56) and comprises cam means (58) engaged by a cam follower (60) mounted on a second rotary member (61). The shapes of the cam means (58) and the circular paths of the handling arm pivots (55) and cam followers (60) are such that the handling arms maintain a fixed angle of presentation through the handling zone, then rotate in the opposite sense to the first rotary member (56) to retard their tip speeds, then move laterally from the path of the articles to be handled, and finally rotate in the same sense as the first rotary member to approach the handling zone to repeat the cycle.

IPC 1-7  
**B65G 47/84**; **B65B 35/26**

IPC 8 full level  
**B65B 11/38** (2006.01); **B65B 11/12** (2006.01); **B65B 11/56** (2006.01); **B65B 35/20** (2006.01); **B65B 35/26** (2006.01); **B65B 49/10** (2006.01); **B65G 47/53** (2006.01); **B65G 47/82** (2006.01); **B65G 47/84** (2006.01); **B65G 47/86** (2006.01)

CPC (source: EP)  
**B65B 11/12** (2013.01)

Citation (search report)  
• US 3176824 A 19650406 - ELDRED JOHN W, et al  
• US 3899069 A 19750812 - HEINZER HANS  
• DE 2461530 A1 19760701 - EISENHUETTE PRINZ RUDOLPH AG

Cited by  
US4459251A; KR101115243B1; CN112373770A

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LU NL SE

DOCDB simple family (publication)  
**EP 0048105 A1 19820324**; **EP 0048105 B1 19841121**; AT E10352 T1 19841215; AT E10355 T1 19841215; CA 1180992 A 19850115; DE 3167324 D1 19850103; DE 3167325 D1 19850103; EP 0048104 A1 19820324; EP 0048104 B1 19841121; JP H0419086 B2 19920330; JP S5786412 A 19820529

DOCDB simple family (application)  
**EP 81303966 A 19810828**; AT 81303965 T 19810828; AT 81303966 T 19810828; CA 380871 A 19810630; DE 3167324 T 19810828; DE 3167325 T 19810828; EP 81303965 A 19810828; JP 14539581 A 19810914