Title (en)

Apparatus and method for packaging box flats.

Title (de)

Apparat und Verfahren zum Verpacken von Flachschachteln.

Title (fr)

Appareil et procédé d'emballage de boîtes plates.

Publication

EP 0154093 A2 19850911 (EN)

Application

EP 84309009 A 19841221

Priority

US 58364084 A 19840227

Abstract (en)

An apparatus and method by which a single operator, at a single station (45) can pack pre-counted slugs (25, 26) of flat folded cartons, or trays (23) in one or more layers, in corrugated cases (27) for discharge to a case taper (183) several times faster than with manual packing by several operators. The "flats" (23) are advanced in a longitudinal path (31) on a secondary apron (28) of a stacker (21), erect on one edge (37), pre-counted and divided into slugs (25, 26), so that the single operator can slide each slug (25,26) longitudinally past a one-way back stop (46) onto a transfer table (47). The slug (25, 26) may be turned on its longitudinal axis by the operator for inspection and then compressed longitudinally by a ram (73,74) against the back stop (46). The operator has already been presented with a single, flat, tubular case (27), from a stack (97) of such cases, with the leading flaps (147) folded back, and has manually erected the case (27) and inserted it in a case gripper (107) preferably poised above the table (47), thereby closing the minor bottom closure flaps (143, 144). A start button (138) brings the case gripper (107) down to the level (70) of the transfer table (47) so that the operator can push the compressed slug (25, 26) laterally into the open case (119), resting on its side wall in the case gripper (107). The case (119) is automatically lowered to receive the next slug (26) and when full, is turned on a longitudinal axis through 90 DEG onto its bottom and discharged to a case taper (183) while the case gripper (107) returns to its original position above the level (70) of the transfer table (47).

IPC 1-7

B65B 27/08

IPC 8 full level

B65B 25/14 (2006.01)

CPC (source: EP)

B65B 25/141 (2013.01)

Cited by

DE3641859A1; CN115416895A; US5280694A; US5873693A; FR2684069A1; EP3590850A1; WO9200908A1; WO2011117902A1; US11130599B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0154093 A2 19850911; EP 0154093 A3 19860730; EP 0154093 B1 19890719; CA 1238612 A 19880628; DE 3479022 D1 19890824

DOCDB simple family (application)

EP 84309009 Å 19841221; CA 464924 A 19841009; DE 3479022 T 19841221