

Title (en)
Commodity carrying out device

Title (de)
Vorrichtung zur Warenausgabe

Title (fr)
Dispositif d'exécution de marchandises

Publication
EP 2390849 B1 20140730 (EN)

Application
EP 11178787 A 20080512

Priority
• EP 11175385 A 20080512
• EP 08156050 A 20080512
• JP 2007130300 A 20070516

Abstract (en)
[origin: EP1993078A2] The present invention provides a commodity carrying out device that can reliably carry out a vertically-long shaped commodity in an upright state from a commodity storage column to a bucket. More specifically, since a commodity positioned at the front end side of a commodity storage column is tilted forward to be moved into a bucket, when moving a vertically-long shaped commodity in an upright state into a bucket, it is possible to move the commodity without the commodity toppling backwards. Thus, the commodity can be reliably moved into the bucket.

IPC 8 full level
G07F 7/00 (2006.01); **G07F 11/04** (2006.01)

CPC (source: EP US)
G07F 11/04 (2013.01 - EP US); **G07F 11/165** (2013.01 - EP US)

Citation (examination)
• US 6253954 B1 20010703 - YASAKA YOSHIO [JP]
• US 4108333 A 19780822 - FALK LEONARD P, et al
• US 2008142537 A1 20080619 - HOWELL THOMAS P [US], et al

Cited by
US2013299509A1; US9038852B2

Designated contracting state (EPC)
DE IT

DOCDB simple family (publication)
EP 1993078 A2 20081119; EP 1993078 A3 20090211; EP 1993078 B1 20110727; CN 101308591 A 20081119; CN 101308591 B 20111116; EP 2383708 A2 20111102; EP 2383708 A3 20120229; EP 2383708 B1 20140730; EP 2390849 A2 20111130; EP 2390849 A3 20120229; EP 2390849 B1 20140730; JP 2008310810 A 20081225; JP 5222446 B2 20130626; US 2008283545 A1 20081120

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EP 08156050 A 20080512; CN 200810099076 A 20080516; EP 11175385 A 20080512; EP 11178787 A 20080512; JP 2008128545 A 20080515; US 12168008 A 20080515