

Title (en)
Gripping device

Title (de)
Greifervorrichtung

Title (fr)
Dispositif de préhension

Publication
EP 1029817 A3 20010110 (DE)

Application
EP 00100879 A 20000118

Priority
US 25186199 A 19990217

Abstract (en)
[origin: EP1029817A2] The actuator (16) rotates the first clamp (14) relative to the second clamp (10), on the first spindle (12), from the open to the closed position. It has a carrier arm (18) rotating on a second spindle (20) non-parallel with spindle (12) and is linked to clamp (14) by a guided spiral spring. Carrier roller (22) gives controlled rotation of arm (18), with progressive increase in the spring tension to close the grab.

IPC 1-7
B65H 5/14; B65H 29/04

IPC 8 full level
B41F 21/04 (2006.01); **B65G 47/86** (2006.01); **B65H 5/08** (2006.01); **B65H 5/14** (2006.01); **B65H 29/00** (2006.01); **B65H 29/04** (2006.01); **B66C 1/42** (2006.01)

CPC (source: EP US)
B65H 5/08 (2013.01 - EP US); **B65H 5/14** (2013.01 - EP US); **B65H 29/045** (2013.01 - EP US)

Citation (search report)

- [X] US 2997157 A 19610822 - SIEBKE CARL O
- [X] WO 9107342 A1 19910530 - GRAPHIA HOLDING AG [CH]
- [PX] WO 9912836 A1 19990318 - BELL & HOWELL CO [DE], et al
- [A] EP 0386442 A2 19900912 - GRAPHIA HOLDING AG [CH]
- [A] DE 19642117 A1 19980416 - KOENIG & BAUER ALBERT AG [DE]

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 1029817 A2 20000823; EP 1029817 A3 20010110; EP 1029817 B1 20040414; CN 1263858 A 20000823; CZ 9904606 A3 20010815; DE 10001580 A1 20000824; DE 10001580 B4 20090409; DE 50006032 D1 20040519; JP 2000238240 A 20000905; US 6227588 B1 20010508

DOCDB simple family (application)
EP 00100879 A 20000118; CN 00100483 A 20000201; CZ 460699 A 19991217; DE 10001580 A 20000117; DE 50006032 T 20000118; JP 2000039643 A 20000217; US 25186199 A 19990217