

Title (en)

Method and device for knotting the ends of a thread to flat articles

Title (de)

Verfahren und Vorrichtung zum Verknoten des Endes eines Fadens an einem flächigen Gegenstand

Title (fr)

Procédé et dispositif pour la liaison des extrémités des fils à des articles plats

Publication

EP 1479612 B1 20051214 (DE)

Application

EP 03010544 A 20030510

Priority

EP 03010544 A 20030510

Abstract (en)

[origin: EP1479612A1] The method involves pulling a thread (F) located in front of holes on one side of an object e.g. infusion bag, through the holes to other side of the object to form two loops. One loop formed by the thread that passes by 270 degrees is rotated. A portion of the other loop is pulled through the twisted loop having an end of the thread. The loop holding the end of the thread is loosened and knot formed is tightened. An independent claim is also included for a device for knotting the end of a thread to a flat object containing two spaced holes for the knot.

IPC 1-7

B65B 29/04

IPC 8 full level

D03J 3/00 (2006.01); **B65B 29/04** (2006.01)

CPC (source: EP US)

B65B 29/04 (2013.01 - EP US)

Cited by

EP1522496A1; EP2607247A1; EP3733382A1; EP3909878A1; US11453520B2; EP3909879A1; EP4212441A1; US11999517B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1479612 A1 20041124; EP 1479612 B1 20051214; AT E312760 T1 20051215; CN 100500517 C 20090617; CN 1550414 A 20041201; DE 50301922 D1 20060119; ES 2254818 T3 20060616; JP 2004338807 A 20041202; JP 4451197 B2 20100414; PL 203090 B1 20090831; PL 367807 A1 20041115; RU 2004114250 A 20051027; RU 2334659 C2 20080927; US 2004222634 A1 20041111; US 7264282 B2 20070904

DOCDB simple family (application)

EP 03010544 A 20030510; AT 03010544 T 20030510; CN 200410038570 A 20040509; DE 50301922 T 20030510; ES 03010544 T 20030510; JP 2004127703 A 20040423; PL 36780704 A 20040507; RU 2004114250 A 20040507; US 83900704 A 20040505