

Title (en)  
Spring production machine

Title (de)  
Federherstellungsmaschine

Title (fr)  
Machine de fabrication de ressorts

Publication  
**EP 2239067 B1 20110427 (DE)**

Application  
**EP 10001364 A 20100210**

Priority  
DE 102009016768 A 20090407

Abstract (en)  
[origin: EP2239067A1] The machine has a mandrel (16) movable perpendicular to a fed wire and in a vertical direction and a direction perpendicular to a machine frame. A forming tool (15) i.e. 3-dimensional winding finger, is movable parallel to a feeding direction and in two directions (v, y) that are perpendicular to each other and to the feeding direction. The mandrel has a wire guiding cable (27) formed at a distance from an external side wall (31) that is turned away from the frame. The cable guides the wire to the tool via the mandrel, where the wire is guided to the cable via an opening (46) of the mandrel.

IPC 8 full level  
**B21F 3/027** (2006.01); **B21F 35/02** (2006.01)

CPC (source: EP)  
**B21F 3/027** (2013.01); **B21F 35/02** (2013.01)

Cited by  
CN104070124A

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2239067 A1 20101013; EP 2239067 B1 20110427**; AT E507020 T1 20110515; CN 101856704 A 20101013; CN 101856704 B 20130605; DE 102009016768 B3 20100923; DE 502010000019 D1 20110609; JP 2010240738 A 20101028; JP 5255582 B2 20130807; TW 201039940 A 20101116; TW I377097 B 20121121

DOCDB simple family (application)  
**EP 10001364 A 20100210**; AT 10001364 T 20100210; CN 201010148829 A 20100325; DE 102009016768 A 20090407; DE 502010000019 T 20100210; JP 2010039886 A 20100225; TW 99106097 A 20100303