

Title (en)
MACHINE FOR WINDING SPRINGS

Publication
EP 0252211 A3 19880330 (DE)

Application
EP 87103047 A 19870304

Priority
DE 3623079 A 19860709

Abstract (en)
[origin: EP0252211A2] The machine has a gripper for the end of the spring wire and a rotatable mandrel as well as a feeding drive. The mandrel (7) can be clamped between two slides (3, 4) which can be moved in relation to each other but together during the winding operation on a laterally arranged machine bed (1). Shears which can be swung in, for cutting the wound spring off from the wire feed, are provided. Two wire reels (18) are mounted, in such a way that they can swivel between a working position and a material-changing position, on a two-armed carrier (20) on a column (19) fixedly located on the machine frame (2). <IMAGE>

IPC 1-7
B21F 3/04

IPC 8 full level
B21F 3/04 (2006.01)

CPC (source: EP)
B21F 3/04 (2013.01)

Citation (search report)

- [A] US 2959372 A 19601108 - JOHN SADORF
- [A] US 3000427 A 19610919 - JOSEPH GOGAN
- [A] GB 1238409 A 19710707
- [A] DE 1993530 U 19680912 - PROLL & LOHMANN [DE]

Cited by
GB2343857A; CN106424459A; US5934964A; CN106163692A; GB2524376B; US11800937B2; US11412860B2; WO2015114360A1; US11305941B2; US10808786B2

Designated contracting state (EPC)
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0252211 A2 19880113; EP 0252211 A3 19880330; EP 0252211 B1 19911023; AT E68730 T1 19911115; DE 3623079 A1 19880204; DE 3623079 C2 19900809; DE 3774010 D1 19911128; ES 2025076 B3 19920316; GR 3003606 T3 19930316

DOCDB simple family (application)
EP 87103047 A 19870304; AT 87103047 T 19870304; DE 3623079 A 19860709; DE 3774010 T 19870304; ES 87103047 T 19870304; GR 920400050 T 19920121