

Title (en)  
APPARATUS AND METHOD FOR FORMING SPRINGS

Title (de)  
VORRICHTUNG UND VERFAHREN ZUR BILDUNG VON FEDERN

Title (fr)  
APPAREIL ET PROCÉDÉ DE FORMATION DE RESSORTS

Publication  
**EP 3706932 A1 20200916 (EN)**

Application  
**EP 18819550 A 20181102**

Priority  
• GB 201718529 A 20171109  
• GB 2018053186 W 20181102

Abstract (en)  
[origin: WO2019092404A1] A spring forming apparatus is shown generally at (200), in which metal wire (220) is fed from a supply (not shown) by feed rollers (230), via irregularity-effecting rollers (240) to a forming station (250). The forming station comprises a first deflector (260) and a second deflector (270). When the spring S is complete, it separates automatically from the rest of the wire (220) due to the presence of an irregularity (280), without the need for a cutter device.

IPC 8 full level  
**B21F 3/06** (2006.01); **B21F 5/00** (2006.01); **B21F 11/00** (2006.01); **B21F 35/00** (2006.01)

CPC (source: EP GB US)  
**B21F 3/00** (2013.01 - GB); **B21F 3/06** (2013.01 - EP US); **B21F 5/00** (2013.01 - EP); **B21F 11/005** (2013.01 - EP GB US);  
**B21F 35/00** (2013.01 - EP GB US)

Citation (search report)  
See references of WO 2019092404A1

Designated contracting state (EPC)  
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2019092404 A1 20190516**; AU 2018363284 A1 20200604; CA 3082059 A1 20190516; CN 111936250 A 20201113;  
EP 3706932 A1 20200916; GB 201718529 D0 20171227; GB 201817923 D0 20181219; GB 2578720 A 20200527; GB 2578720 B 20220831;  
US 2021187588 A1 20210624

DOCDB simple family (application)  
**GB 2018053186 W 20181102**; AU 2018363284 A 20181102; CA 3082059 A 20181102; CN 201880085407 A 20181102;  
EP 18819550 A 20181102; GB 201718529 A 20171109; GB 201817923 A 20181102; US 201816761872 A 20181102