

## Title (en)

Decorative edge of forged steel with a flat and continuous spiral shape and its manufacturing process

## Title (de)

Dekorativer Abschluss aus Schmiedestahl mit der Form einer ebenen, endlosen Spirale und Herstellungsverfahren hierfür

## Title (fr)

Bordure décorative en acier forgé sous forme de spirale plate continue et son procédé de fabrication

## Publication

**EP 1837455 A1 20070926 (FR)**

## Application

**EP 06380057 A 20060323**

## Priority

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## Abstract (en)

The decorative continuous flat spiral forged steel border useful in a fabrication of grills, enclosures, closures, balustrades, balconies, parapets and jalousies for delimiting, enclosing and protecting public spaces, gardens, yards, buildings, troughs and balconies, comprises a continuous spiral plate structure made up of a single element constituted by a rod, rim or plate. The border is fabricated using bending and deformation resistance or combination of bending and deformation resistance with other steel forging elements. The continuous spiral plate is constituted by a massive bar (14). The decorative continuous flat spiral forged steel border useful in a fabrication of grills, enclosures, closures, balustrades, balconies, parapets and jalousies for delimiting, enclosing and protecting public spaces, gardens, yards, buildings, troughs and balconies, comprises a continuous spiral plate structure made up of a single element constituted by a rod, rim or plate. The border is fabricated using bending and deformation resistance or combination of bending and deformation resistance with other steel forging elements. The continuous spiral plate is constituted by a massive bar (14). The rod, rim or plate are made up of laminated forged steel and are bent consecutively along the bar by alternating straight and flat segments with curved bents located on a tip of an angle (4), which successively forms the straight segments among themselves. The bended bar (1) forms a continuous spiral with straight flat axis of a rigid self supporting single piece, which forms a structural element. The rod, rim or plate have square and cylindrical bar sections of 100-400 mm, where the sections are aligned alternatively on two parallel planes. A radius of the bents is 25 mm, where the bents make a path of straight segments by forming an angle for spiral development of 45-90[deg] . The structural element is armed with foot for anchoring to a floor fixed at a lower tip of the spiral with a help of poles having fitting pins. The structural element is armed with straight or wavy balustrade, single or double sills, single or double straight lower stringers and/or symmetrical or asymmetrical double spirals. An independent claim is included for a process of fabricating a decorative continuous flat spiral forged steel border.

## Abstract (fr)

Une bordure en acier forgé sous forme de spirale plate continue est constituée par une barre massive pliée consécutivement sur elle-même par des brins (1) droits plats et parallèles alternés avec des plis (3) qui en même temps dévient la trajectoire des brins droits en formant une spirale continue plate d'une seule pièce autoportante et très résistante à la déformation spécialement adéquate pour être incorporé comme élément structurel et décoratif dans la fabrication de grillages, enceintes, clôtures, grilles, balustrades, balcons, parapets et jalousies en acier laminé.

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- [X] US 4643400 A 19870217 - PORAT CHAIM [IL]
- [X] FR 2134057 A1 19721201 - DATZ HERMANN
- [X] GB 1137002 A 19681218 - SWYFTITE LTD
- [A] EP 1316658 A1 20030604 - BOUTTEAU CORINNE [FR]

## Cited by

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