

Title (en)
Stopper rod

Title (de)
Stopfenstange

Title (fr)
Quenouille

Publication
EP 1110646 A3 20011010 (DE)

Application
EP 00117590 A 20000816

Priority
DE 19963147 A 19991224

Abstract (en)
[origin: US2002031668A1] The invention concerns a stopper rod with a stopper rod cap that is designed differently from the base body. A stopper rod with: A cylindrical stopper rod body comprising a fire-resistant, carbon-containing material, whereby the stopper rod body comprises a base part to receive a guide rod and has a nose-like section at its free end, characterized in that: the nose-like section is made of a different fire-resistant material than the base part, whereby an interface extends between the nose-like section and the base part over the entire cross-section of the stopper rod body, and the nose-like section comprises a fire-resistant material whose carbon content burns out under oxidic atmosphere above 900° C., at least close to a surface area.

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CPC (source: EP US)
B22D 41/18 (2013.01 - EP US); **Y10T 428/30** (2015.01 - EP US)

Citation (search report)

- [AD] EP 0721388 B
- [A] FR 2699841 A1 19940701 - VESUVIUS FRANCE SA [FR]
- [A] GB 2095612 A 19821006 - THORNTON JAMES MENZIES
- [A] PATENT ABSTRACTS OF JAPAN vol. 015, no. 190 (M - 1113) 16 May 1991 (1991-05-16)
- [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 239 (M - 1601) 9 May 1994 (1994-05-09)

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US 2002031668 A1 20020314; US 6511751 B2 20030128; AT E253425 T1 20031115; DE 19963147 C1 20010510; DE 50004315 D1 20031211; EP 1110646 A2 20010627; EP 1110646 A3 20011010; EP 1110646 B1 20031105; ES 2209733 T3 20040701

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