

Title (en)

Method and apparatus for selective electroplating.

Title (de)

Verfahren und Vorrichtung zum selektiven Elektroplattieren.

Title (fr)

Procédé et appareil de dépôt sur des surfaces déterminées par voie électrolytique.

Publication

EP 0335277 B1 19940525 (DE)

Application

EP 89105309 A 19890324

Priority

US 17443188 A 19880328

Abstract (en)

[origin: US4853099A] An electroplating apparatus for rapidly depositing a metal onto a selected surface of a workpiece, which apparatus comprises an anode having an active surface with a selected shape to combine with the selected surface of the workpiece to define an elongated gap of at least about 0.050 inches, means for supporting this anode in a fixed position to define the elongated gap; solution circulating means for forcing an electroplating solution with metal cations through the gap in a generally closed path at a velocity to exchange electroplating solution in the gap at a rate of at least 25 times per minute; and, means for applying current flow between the selected workpiece surface and the active surface of the anode through the gap at a current density in excess of 2.0 amperes/in². The invention also involves the method of using this apparatus to rapidly deposit metal, such as nickel, onto the inner cylindrical surface of a bore on a complex part such as an aircraft landing gear forging.

IPC 1-7

C25D 7/04; **C25D 5/08**

IPC 8 full level

C25D 5/02 (2006.01); **C25D 5/08** (2006.01); **C25D 7/04** (2006.01)

CPC (source: EP KR US)

C25D 5/026 (2013.01 - EP KR US); **C25D 5/08** (2013.01 - EP KR US); **C25D 5/67** (2020.08 - EP US); **C25D 7/04** (2013.01 - EP KR US)

Citation (examination)

Electroplating Handbook (Ed. L. J. Durney), 4th Ed., Van Nostrand Reinhold Comp., New York, US, 1984, p.767-73

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

US 4853099 A 19890801; AT E106105 T1 19940615; CA 1335972 C 19950620; DE 58907703 D1 19940630; EP 0335277 A1 19891004; EP 0335277 B1 19940525; KR 890014786 A 19891025; KR 910009403 B1 19911115

DOCDB simple family (application)

US 17443188 A 19880328; AT 89105309 T 19890324; CA 594585 A 19890323; DE 58907703 T 19890324; EP 89105309 A 19890324; KR 890003944 A 19890328