

Title (en)

Method for manufacturing tapered rods and apparatus therefor.

Title (de)

Verfahren und Vorrichtung zur Herstellung verjüngter Stangen.

Title (fr)

Procédé et dispositif pour la fabrication de barres coniques.

Publication

EP 0054343 A2 19820623 (EN)

Application

EP 81304219 A 19810915

Priority

- JP 17503180 A 19801211
- JP 17627680 A 19801213

Abstract (en)

Method for manufacturing a tapered rod for a coil spring from a metallic material of mainly steel in a linear state, by imparting heating to the same with a predetermined temperature gradient pattern in the axial direction thereof while or before pulling by tensile force the metallic material chucked at two axially distant points in either direction in a gradually decreasing or stepwise decreasing speed, until a desired tapered portion is formed. An apparatus preferably employed for this method comprises a pulling mechanism (12, 22) for chucking and pulling the material, an electric current supplying mechanism (15) for supplying predetermined amount of current to the material between the two chucked points, a plurality of cooling means (C1 - Cn) arranged axially along the material for positionwise cooling the material so as to make the temperature gradient thereon, a temperature detecting means (16, 17) for detecting the surface temperature of the material for feeding back the detected data to the current supplying mechanism (15), and a heating temperature controlling means (18) for controlling the amount of the current flowed there.

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B21C 37/04

IPC 8 full level

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CPC (source: EP)

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