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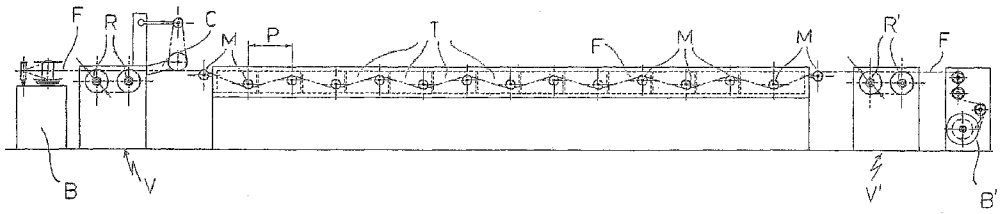
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(54) Title: METHOD AND APPARATUS FOR THE CONTINUOUS QUALITY CONTROL OF A SHAPE MEMORY ALLOY WIRE



(57) Abstract: A method for the continuous quality control of a wire of shape memory alloy comprises: a) supplying the wire through a plurality of controlled temperature areas suitable for reproducing a temperature profile encompassing the characteristic transition temperatures of the material the wire is made of; b) measuring the elongation of the wire at each area at controlled temperature; c) using the data of temperature and elongation to obtain by points the hysteresis curve of the material in the temperature-elongation diagram. Preferably the wire is supplied at a known velocity and with a constant tension, and the measurement of the elongation is obtained by measuring the velocity of the wire. An apparatus carrying out the method comprises supplying units (B, B', V, V') suitable for adjusting the tension and the supplying velocity of the wire (F) through a series of thermostatic chambers (T) containing idle pulleys (M) whereon the wire (F} is wound without sliding, whose rotational velocity can be measured for example by high-definition encoders.

WO 2005/106441 A1