## Abstract

**Method for simultaneously cutting a multiplicity of slices of particularly uniform thickness from a workpiece**

Method for simultaneously cutting a multiplicity of slices from a cylindrical workpiece, along strictly convex cutting faces, comprising holding the workpiece with the axis of the workpiece parallel to the axes of wire guide rollers by means of a mounting strip and a feed means of a wire saw; moving the workpiece perpendicularly from above, by means of the feed device, through a grid of the wire saw, wherein the grid is formed from a multiplicity of portions of a wire, which run parallel to each other and in one plane, by winding the wire around the wire guide rollers and guiding it in grooves in the wire guide rollers that are perpendicular to the axes of the wire guide rollers; and supplying a suspension of hard substances in a carrier liquid, as cutting means, to the wire portions, while the wire portions, having a longitudinal tension, describe a relative motion in relation to the workpiece as a result of rotation of the wire guide rollers with continual alternation between a first direction of rotation and a second direction of rotation, which is opposite to the first direction of rotation, wherein, during the rotation in the first direction, the wire is moved by a first length, and during the rotation in the second direction, the wire is moved by a second length, and the second length is selected so as to be shorter than the first, characterized in that, at the start of the cutting operation a first longitudinal wire tension is selected, and at the end of the cutting operation a second longitudinal wire tension is selected, wherein the first longitudinal tension is selected so as to be greater than the second longitudinal tension.

Fig. 1