Abstract

Device for the Double-Sided Processing of Flat Workpieces and Method for the Simultaneous Double-Sided Material Removal Processing of a Plurality of Semiconductor Wafers

A device for the double-sided processing of flat workpieces (1), comprising an upper working disc (4b) and a lower working disc (4a), wherein at least one of the working discs (4a, 4b), can be driven in rotary fashion by means of a drive, and wherein the working discs (4a, 4b), form between themselves a working gap (64), in which is arranged at least one carrier disc (5) with at least one cutout (25) for at least one workpiece (1) to be processed, wherein the at least one carrier disc (5) has teeth (10) on its circumference, by means of which teeth it rolls on an inner and an outer gear wheel or pin ring (7a, 7b) if at least one of the gear wheels or pin rings (7a, 7b) is set in rotation, wherein the gear wheels or pin rings (7a, 7b) each have a multiplicity of gear or pin arrangements with which the teeth (10) of the carrier discs (5) enter into engagement during rolling, wherein at least one of the pin arrangements has at least one guide (48) which delimits a movement of the margin of the at least one carrier disc (5) in at least one axial direction, wherein one guide (48) is formed by at least one shoulder (50) extending around the circumference of the pin arrangement between a first, larger diameter and a second, smaller diameter of the pin arrangement and a further guide (48) is formed by the side surfaces (56, 58) of at least one groove (15) extending around the circumference of the pin arrangement.

Fig. 1