SEMI-CONDUCTOR MOUNTING APPARATUS WITH A CHIP GRIPPER TRAVELLING BACK AND FORTH

ABSTRACT

A "pick-and-place" apparatus of this type has a first pivoted lever (10) driven in alternating directions of pivoting, the drive shaft (4) of which is mounted centrally between a first location (A) and a second location (B). In the end positions (Ea, Eb), which delimit the pivoting range (Φ), the pivoted lever (1) always faces towards one location (A) or the other location (B). A second pivoted lever (12) is mounted at the end of the first lever (10) and driven in the opposite direction thereto and with a predetermined gear ratio (n) thereto, for example, resulting from a fixed toothed wheel (5) by means of a toothed belt (6) and a further toothed wheel (7). The chip gripper (20) is connected to the end of the second lever (12). The gear ratio (n) and the lengths (h1, h2) of the two levers (10, 12) are matched to each other such that in both end positions (Ea, Eb), the two levers are in an extended position with respect to one another and the chip gripper (20) is over the one location (A) or the other location (B). The pivot planes of the levers (10, 12) can be perpendicular or parallel to the planes of the chip carrier (32) and/or of the substrate (38) upon which the chips (30) are mounted.

(Fig. 1)