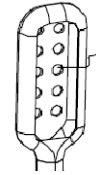
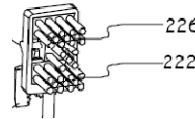
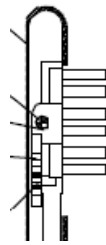
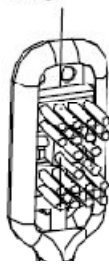
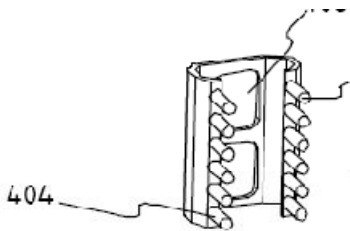
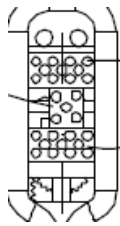
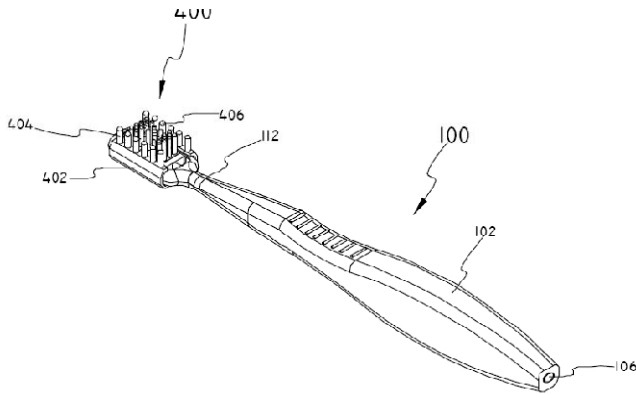


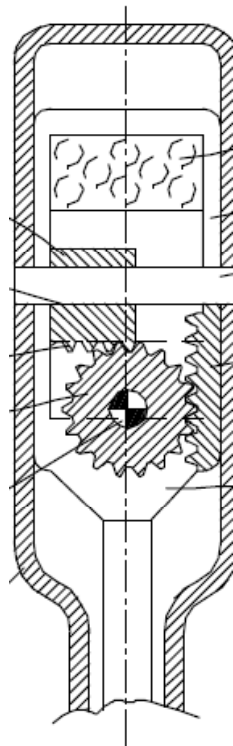
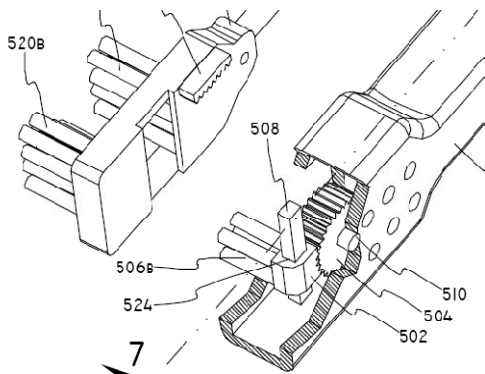
Summary of the Invention

The present invention provides an electric toothbrush of which the bristles protruding from the brush head move in two different linear directions simultaneously within.



The electric toothbrush of the present invention comprises at least one first-linear motion bristle holder having bristles and being mounted to a brush head, at least one second-linear motion bristle holder having bristles being mounted to the brush head and cover housing. The first-linear motion bristle holder, second-linear motion bristle holder and the brush head, and bristles exposed bristles are used,

All of the above said being connected to a gear assembly and moved reciprocating at a first direction driven through the gear assembly by a motor within the electric toothbrush and the second-linear motion bristle holder being configured and connected to the brush head, so that bristles within the second-linear motion bristle holder are able to move in a second direction simultaneously when the brush head moves reciprocating along the first direction.



The brush head can move along the first direction through the gear assembly under the power provided by the motor. Therefore, bristles within the at least one first-linear motion bristle holder can move in the first direction with the brush head and make a major movement during brushing teeth. When the second-linear motion bristle holder is mounted to the brush head, its configuration associated with the brush head and the cover realizes the movement of bristles within in the second direction. That is different from the first direction, which provides a further clear function in addition to that of the bristles within the at least one first-linear motion bristle holder. One aspect of the present invention, when one second-linear motion bristle holder is mounted to the cover, an upper gear may be connected to the cover, an oscillating rack may be fixedly attached to or a part of the at least one second-linear motion bristle holder and placed to mesh with the at least one upper gear, a vertical rack may be fixedly attached to or a part of the brush head and placed to mesh with the upper gear, the oscillating rack and vertical rack are configured and placed so that, when the brush head is driven to move parallel to the longitudinal axis of the toothbrush, the at least one second-linear motion bristle holder is able to move perpendicular to the longitudinal axis of the toothbrush simultaneously through rotation of the upper gear against the vertical rack and thereby movement of the oscillating rack.