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## (54) Title of the invention : PRESSURE SENSITIVE MANUAL/HANDHELD TOOTHBRUSH

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## (57) Abstract :

TITLE: PRESSURE SENSITIVE MANUAL/HANDHELD TOOTHBRUSH APPLICANT: TAGORE DENTAL COLLEGE AND HOSPITAL ABSTRACT The present invention discloses a pressure sensitive manual/handheld toothbrush having adjustable pressure setting thereby enabling an user to apply appropriate pressure on the teeth and thus preventing mechanical wear of the tooth and thus avoiding damage to the teeth and the gingiva leading to tooth sensitivity, cervical abrasions and gingival recession. The pressure sensitive manual/handheld toothbrush of the present invention comprises of a head[1] including a set of bristles attached thereto, a neck[2] and an handle[3]. The invention is characterized in that (a) a pressure sensor[4] disposed within the head[1] for sensing the extent of pressure applied; (b) characterized cuff[5] encircling the neck[2] adapted to rotate at 3 levels comprising of loosening, tightening and normal and configured to provide flexibility to the head[1] through a force sensitive resistor [10] depending on the levels in which i. when the cuff[5] is positioned at the level of loosening, the head[1] become more flexible to permit a brushing force not more than 1 N; ii. when the cuff[5] is positioned at the level of normal, the head[1] become medium flexible to permit a brushing force not more than 1.5 N; (c) a vibration sensor[6] integrated with the pressure sensor[4] and disposed within the handle[3] and configured to generate a warning vibration upon receiving excessive brushing force on the head[1]; (d) a charging port[8] positioned at the bottom of the handle[3] to charge tooth brush through a battery[7]; (e) an on/off switch[9] positioned on the handle[3] and integrated with the battery[7] for the working of the tooth brush.

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