A New Bracket-Placement Device

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The BracketMaster* bracket-placement device provides precise horizontal and vertical control for positioning each bracket according to ideal measurements[1-3] (Fig. 1). The horizontal bar at one end of the device fits within an .022" or .018" slot to orient the bracket in relation to the tooth's incisal edge (Fig. 2). Scored height measurements on the vertical component at 3.5mm, 4.0mm, 4.5mm, and 5.0mm from the horizontal bar allow bracket positioning at a standard distance from the tooth's incisal edge (Fig. 3). In cases of severely abraded incisal edges or teeth with compromised vertical anatomy or positioning, the bracket can be placed at a predetermined height based on the planned final tooth position.[4] The BracketMaster can be used on any tooth in either arch, eliminating the need to switch instruments for different regions or arches.

The scaler on the opposite end of the BracketMaster has a dual purpose: initial compression of the bracket on the tooth surface, and removal of excess bonding composite before final bracket positioning (Fig. 4). This reduces the number of tools needed for bonding and saves chairtime.

Placement of Molar Brackets

First and second molars can be difficult to bond because of their location in the dental arch and the proximity of buccal mucosal tissue. The efficacy of conventional measuring devices for molar bracket positioning is restricted by their design, as well as the presence of cheek retractors. With the BracketMaster, one end of the horizontal bar is placed in the slot of the adjacent premolar bracket, and the opposite end is placed in the molar

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Fig. 1 BracketMaster* bracket-placement device.

Fig. 2 BracketMaster used to position maxillary premolar bracket.

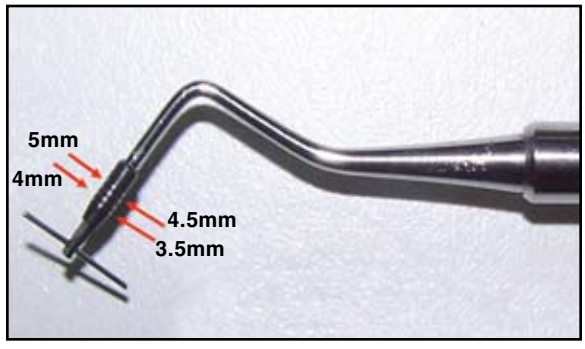

Fig. 3 Scored bracket height markings on vertical component of BracketMaster.

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Fig. 4 Scaler used to seat bracket and remove excess bonding composite.

tube or slot, ensuring a molar bracket height that is compatible with that of the neighboring premolar (Fig. 5). This reduces the amount of time spent leveling the molars as a result of imprecise bracket placement. If the molar is being used for anchorage and there is no significant marginal-ridge discrepancy between the premolar and molar, a wire of any size can be inserted immediately, saving treatment time. When there is a significant vertical discrepancy between the premolar and the molar, one end of the BracketMaster's horizontal bar can be inserted in the premolar slot while the other end guides placement of the molar bracket.

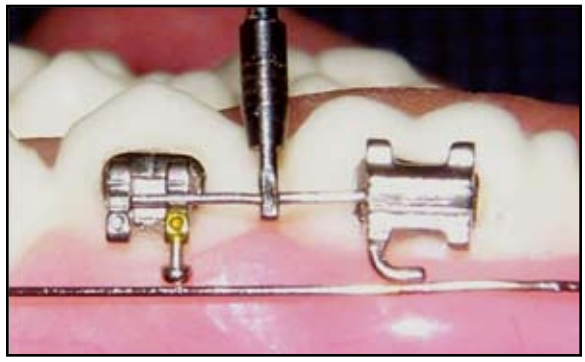

Fig. 5 Molar bracket positioning with BracketMaster horizontal bar in slot of adjacent premolar bracket.

Rebonding Brackets

The BracketMaster can be used to rebond a bracket in its original position (Fig. 6). The device's horizontal bar is used to approximate the position of the archwire in the bracket (Fig. 6B). After the surface of the tooth is etched or conditioned, the new bracket is applied (Fig. 6C). One end of the BracketMaster's horizontal bar is placed in the slot of the adjacent bracket, while the other end is placed in the slot of the newly positioned (uncured) bracket (Fig. 6D). Once the two brackets are level

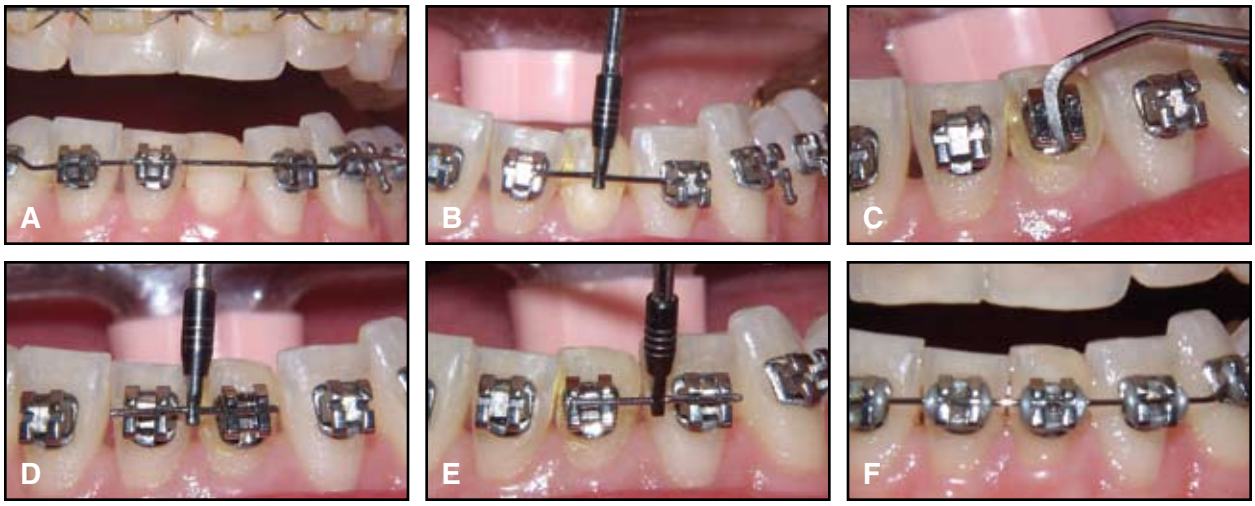

Fig. 6 Rebonding procedure. A. Debonded mandibular bracket, with archwire still in place. B. Ends of BracketMaster horizontal bar placed in slots of adjacent brackets to indicate rebonding position. C. Scaler used to position bracket on tooth. D. Horizontal bar placed in slots of adjacent bracket and new (uncured) bracket. E. New bracket leveled before curing. F. Archwire tied in.

Fig. 7 Indirect bonding setup on cast.

(Fig. 6E), the new bracket is cured in its final position (Fig. 6F). This process maintains proper bracket-archwire mechanics and eliminates the need to "drop back in wire size" to level and align the involved teeth. It is especially useful in situations in which leveling and alignment have been completed and larger archwires are being used for space closure, molar correction, archform development, and torque control.

Indirect Bonding

The BracketMaster can also be used for indirect bonding (Fig. 7). As in direct bonding, it provides vertical and horizontal control to allow precise positioning of each bracket according to its prescribed height and mesiodistal orientation.

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