
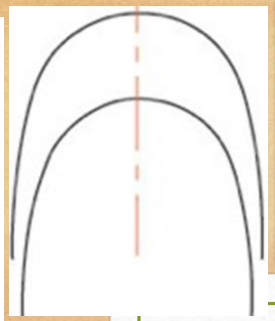

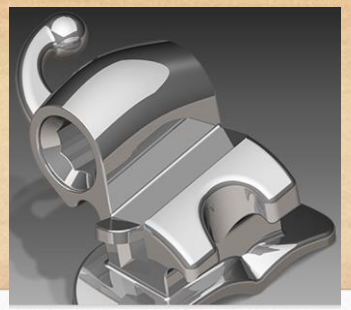











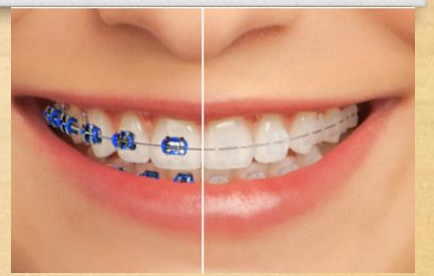


FIXED ORTHODONTIC APPLIANCES

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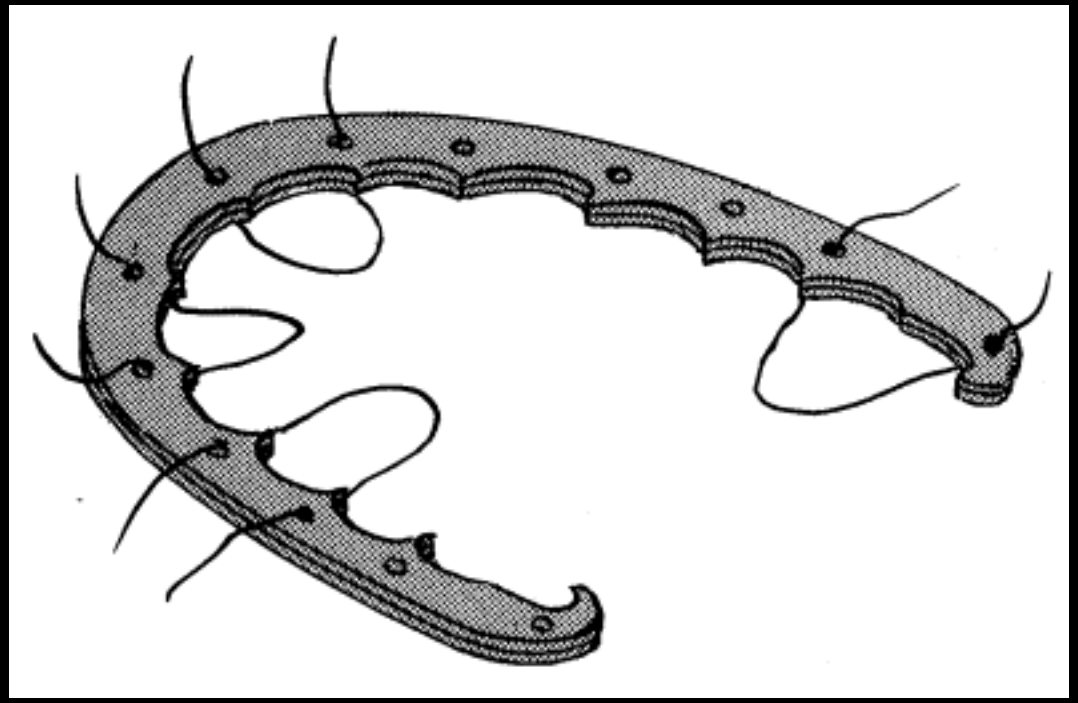
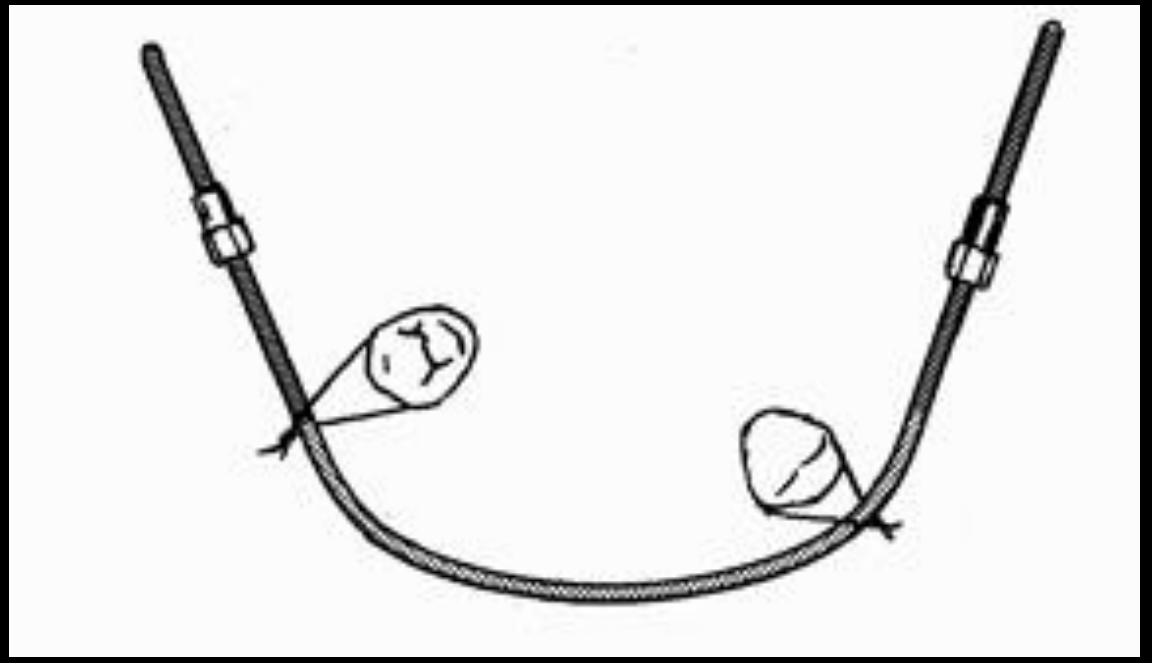
History of Orthodontics

E – ARCH APPLIANCE

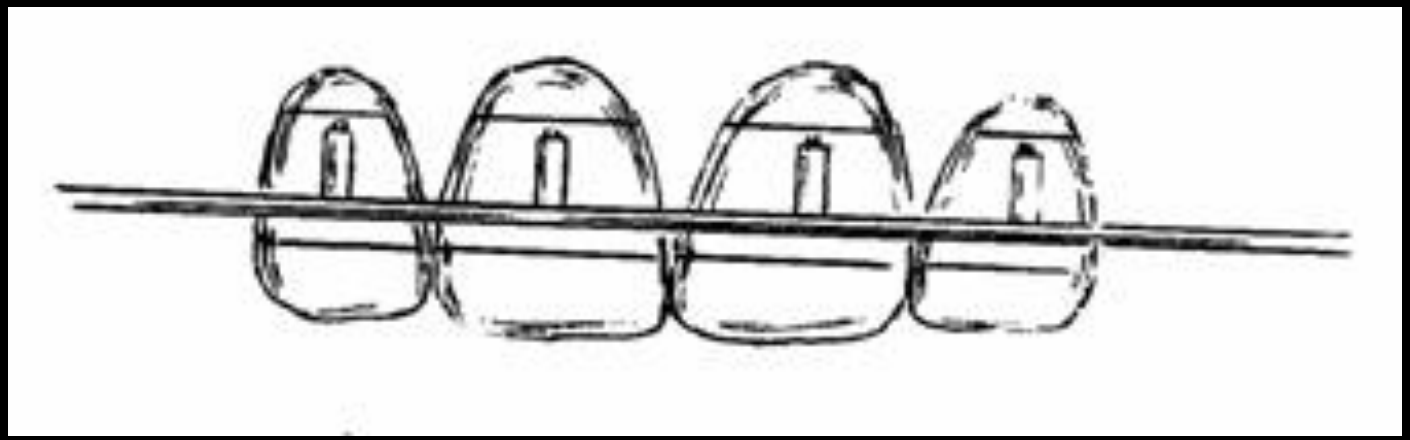
Introduced in 1800s by Dr. Edward H. Angle. The movement of teeth depends on the rigid metallic frame work to which individual tooth were tied dictated by the appliance. The movement of teeth were only by tipping.

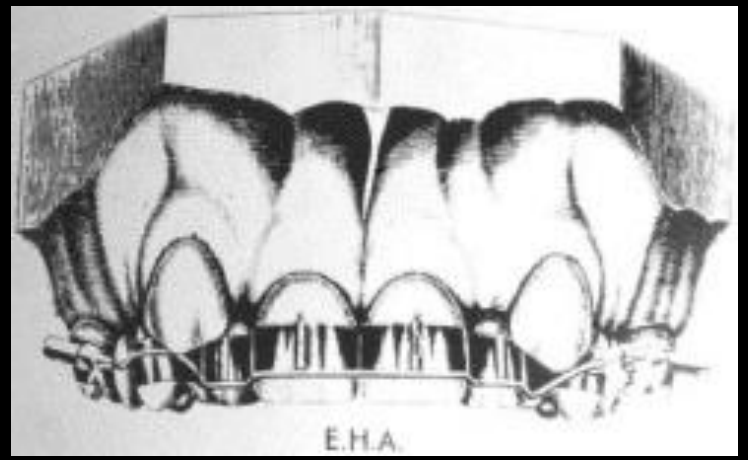




PIN AND TUBE APPLIANCE

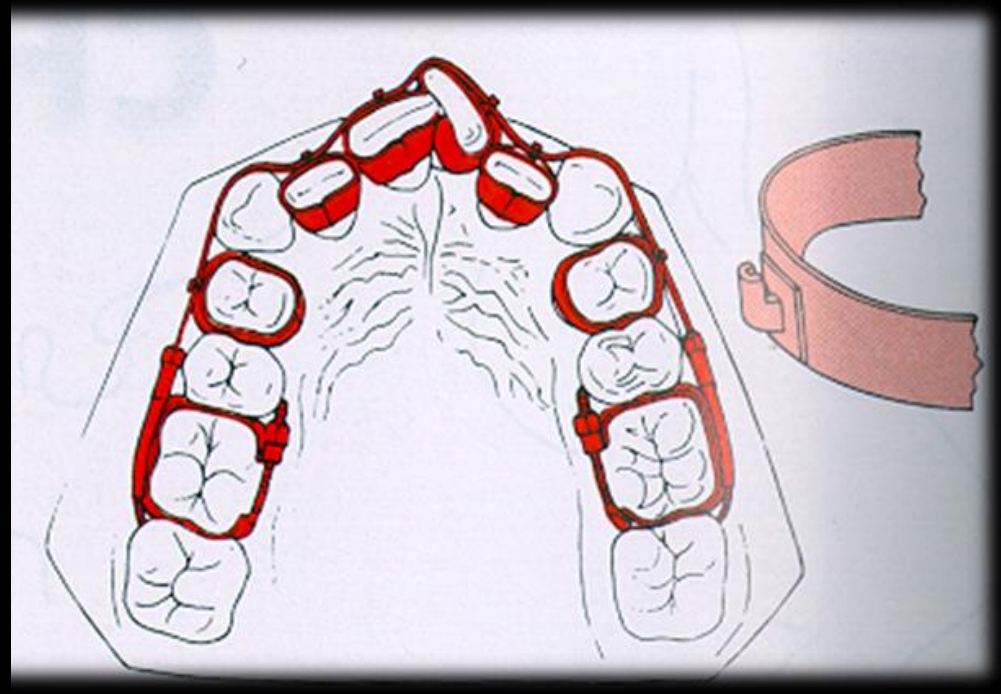
Angle banded every teeth with a vertical tube placed over the bands. The arch wire was locked in to its place using pins and the movement used to take place by tipping.





RIBBON ARCH BRACKETS

The ribbon arch appliance introduced in 1915 by Dr. Edward Angle. It was actually the first bracket, as such, to be used in an orthodontic appliance. In the ribbon arch appliance, the tube principle was abandoned for the bracket principle. The mesial and distal walls of the tube were removed. Thus these brackets had a vertical slot facing occlusally in contrast to the Begg bracket which faces gingivally.

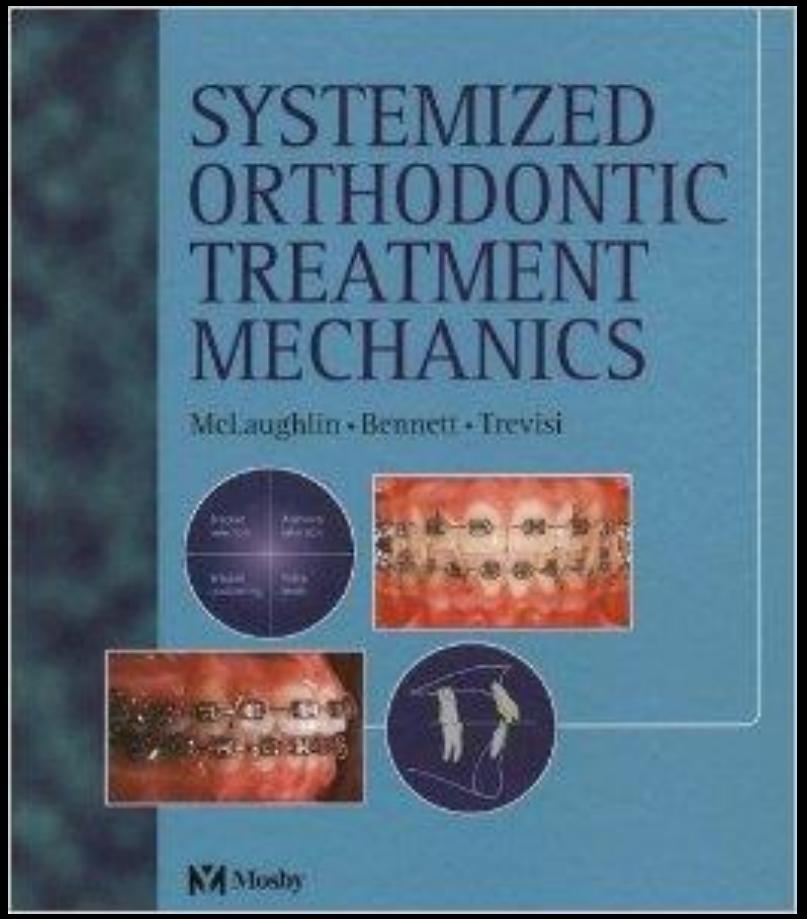


BEGGS' BRACKET

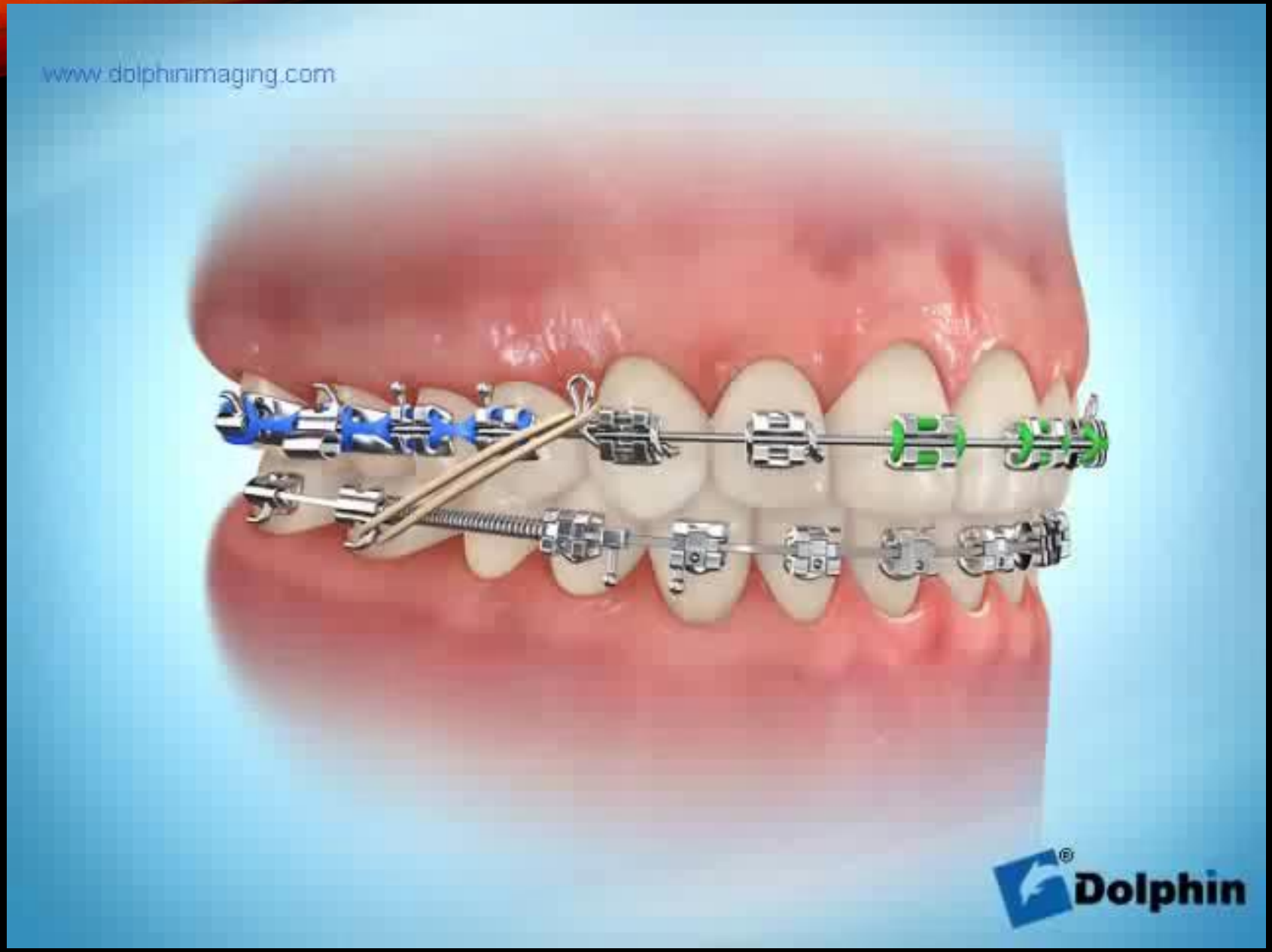
These are modified ribbon arch brackets, which are narrow mesio-distally and carry a vertical slot usually of 0.022" size. The ribbon arch brackets designed by Angle were placed inverted by Begg with the slot facing gingivally. The round arch wire is loosely fitted and held in place by a lock pin or ligature tie wires. This is responsible for the free tipping and sliding of teeth during the initial stages of treatment. But, because of the narrow bracket and round wire, apical movements are not possible without the use of auxiliary springs.

MBT *(MCLAUGHLIN, BENNETT, TREVISI)*

- The authors Richard P. McLaughlin & John C. Bennett introduced this technique, in the year 1995. They produced a “Theoretical Bracket Placement Chart” by measuring the distance from the incisal or occlusal edge to the center of the clinical crown. Values at +0.5mm and +1.0mm were added for larger teeth, and values at -0.5mm and -1.0mm for smaller teeth.



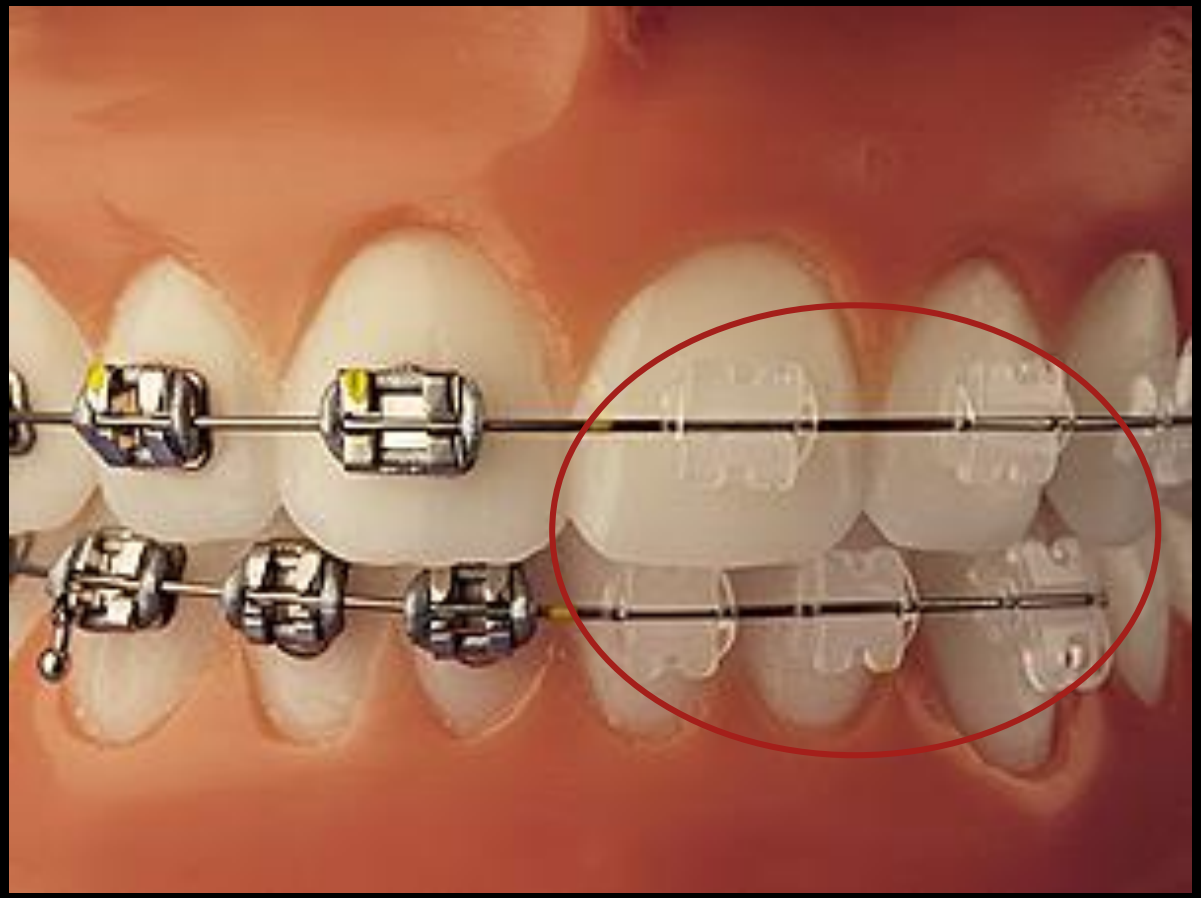
PARTS OF FIXED ORTHODONTIC APPLIANCE THERAPY



BRACKETS

STAINLESS STEEL BRACKETS

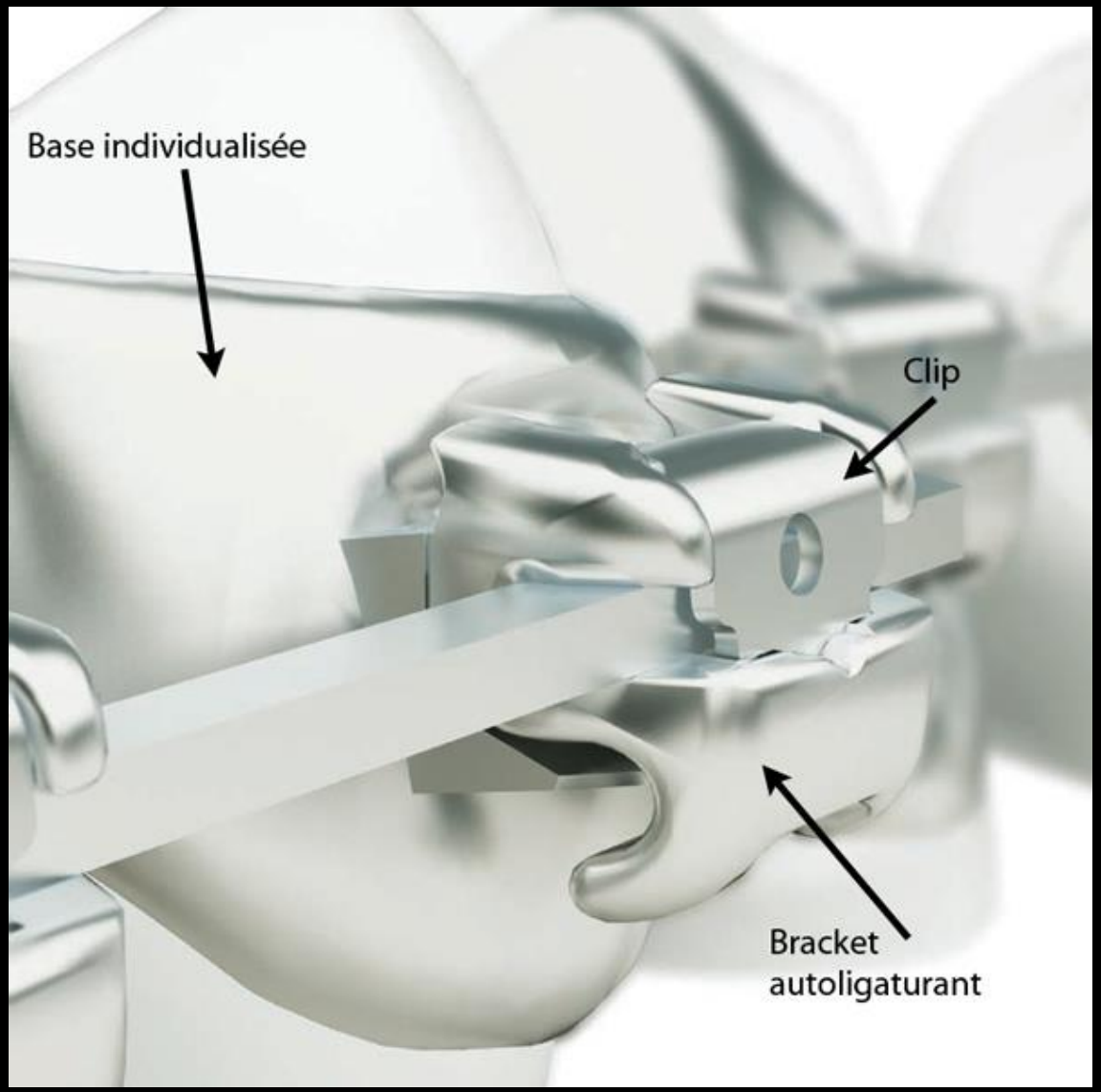
CERAMIC BRACKETS



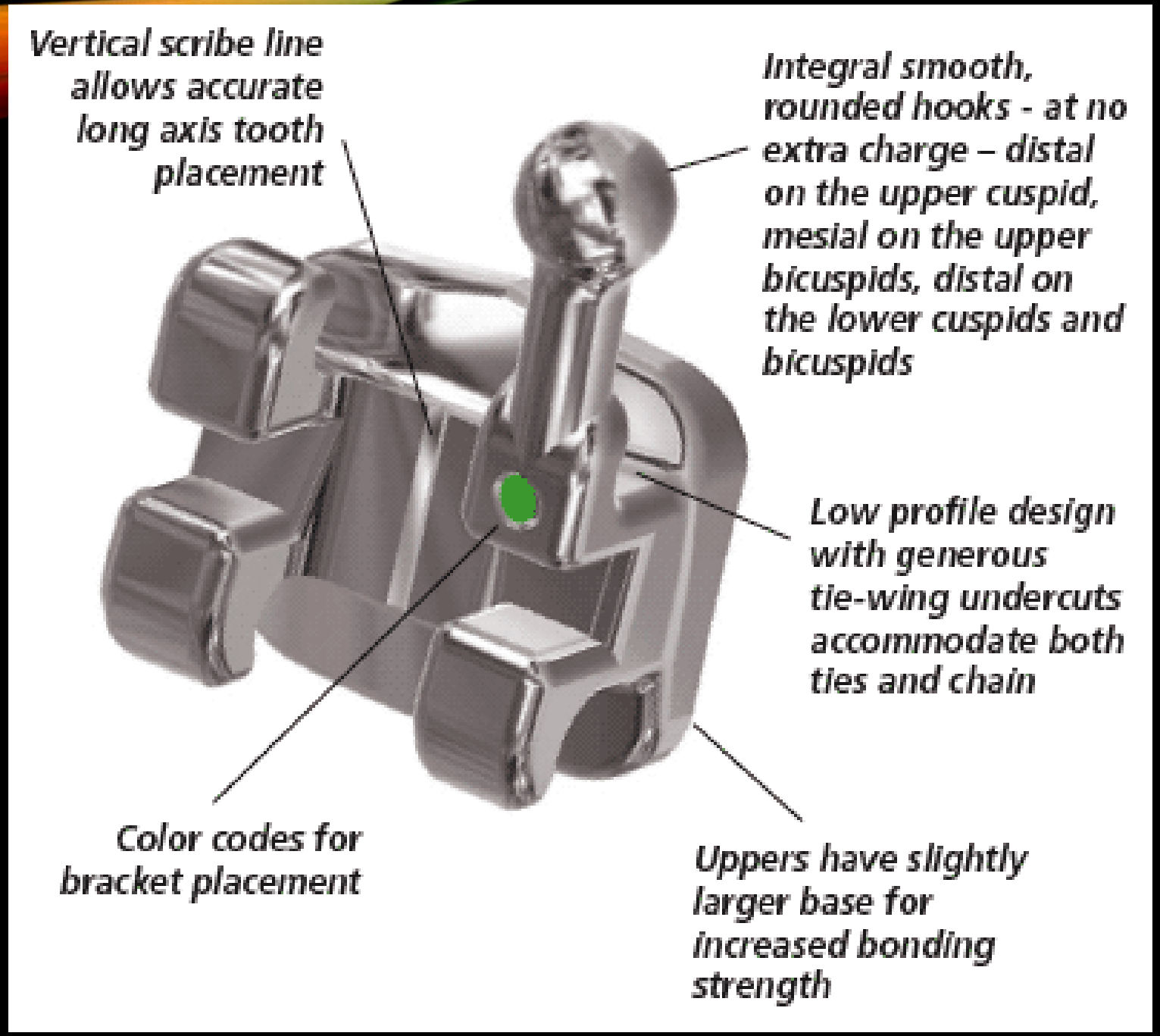
SELF-LIGATING BRACKET

LINGUAL ORTHODONTIC BRACKETS

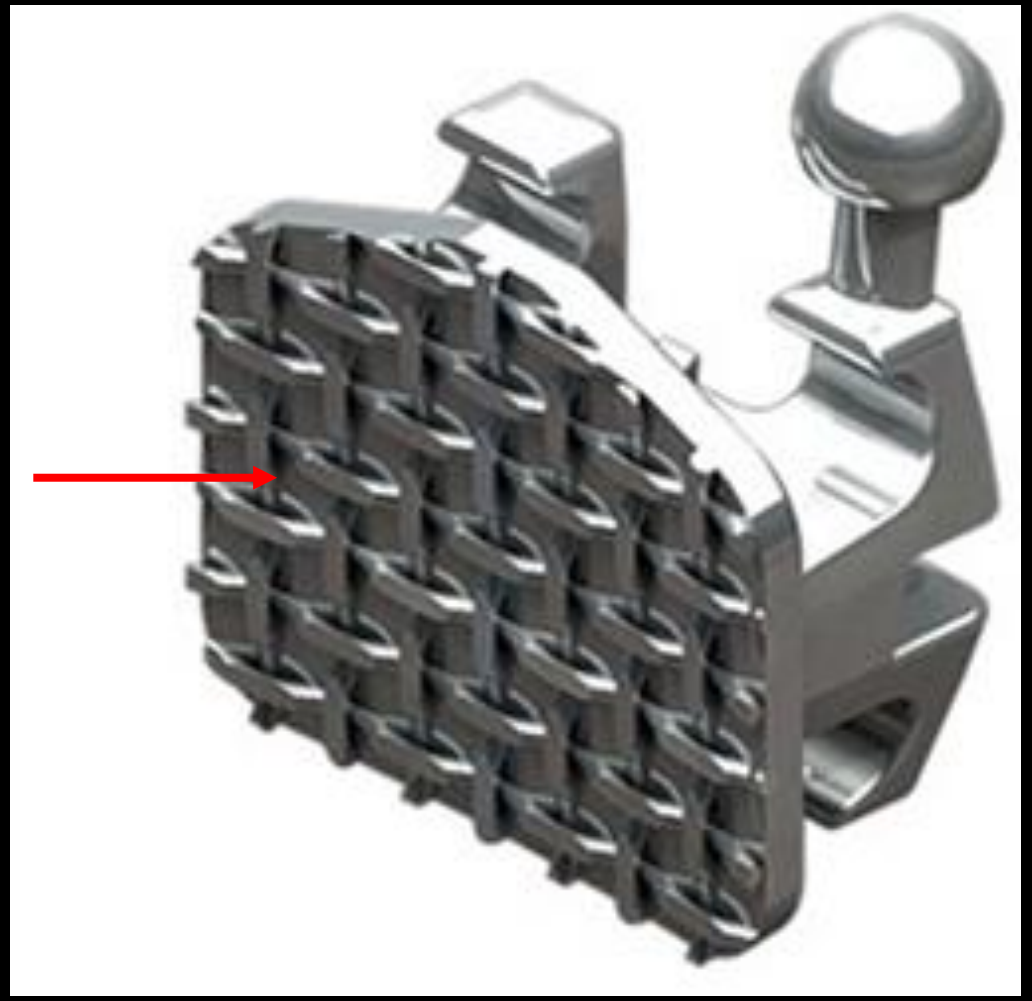
LINGUAL SELF-LIGATING BRACKETS




SLOT


Vertical scribe line allows accurate long axis tooth placement
Integral smooth, rounded hooks - at no extra charge – distal on the upper cuspid, mesial on the upper bicuspids, distal on the lower cuspids and bicuspids
Low profile design with generous tie-wing undercuts accommodate both ties and chain
Color codes for bracket placement
Uppers have slightly larger base for increased bonding strength

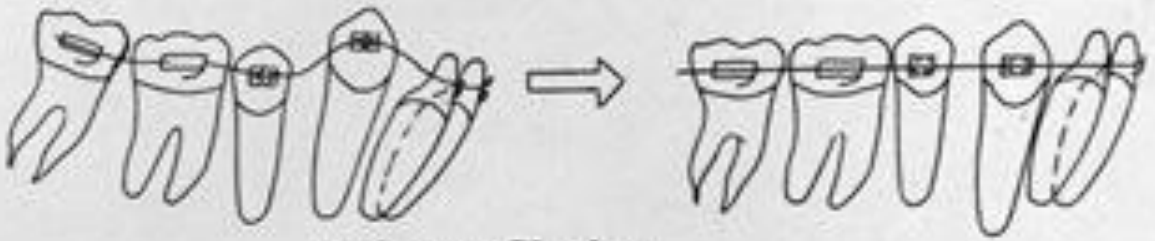
MESH FOR MICRO MECHANICAL ADHESION



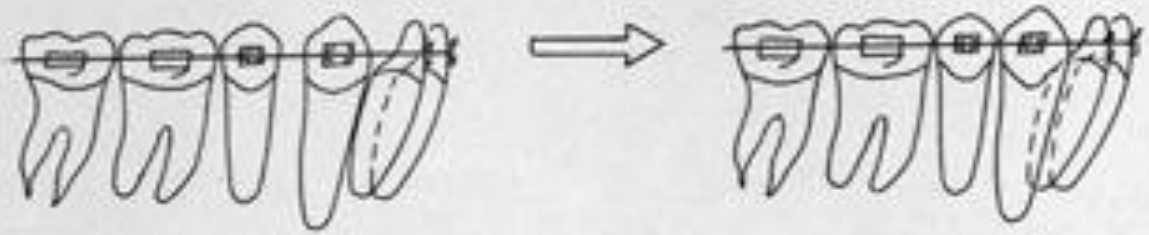
STAGES OF TREATMENT IN FIXED ORTHODONTICS

1. Levelling and Alignment
2. Reduction of overbite and overjet (*Bite before jet*) & space closure
3. Finishing
4. Retention

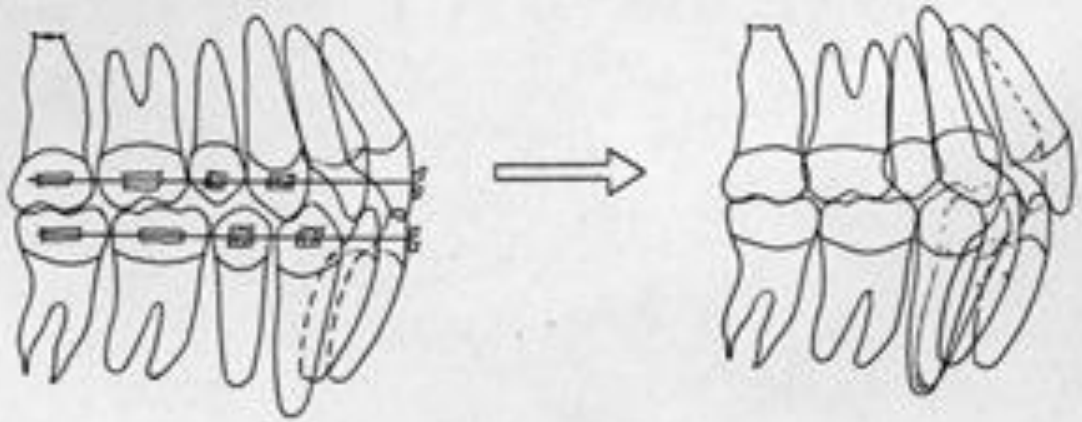
I. Leveling and Alignment
- sequential archwires



II. Space Closing
- c-chain, closing loops, closing coil



III. Detailing and Finishing



RETAINERS

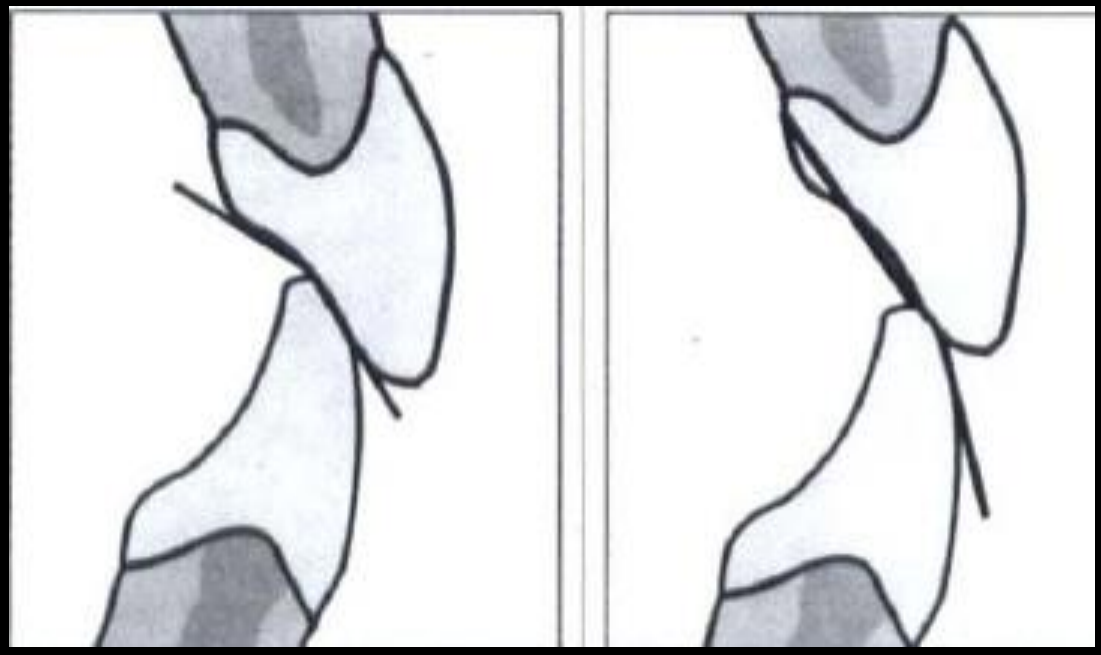
GOALS OF 1ST PHASE

- To bring the teeth in the alignment and correct all the vertical discrepancies by levelling out the arches.
- Labio-lingual discrepancies (crossbites)
- Axial discrepancies (M-D)
- Correct rotations

GOALS OF 2ND PHASE

1. Correct deep bite and overjet

2. Complete closure of spaces



GOALS OF 3RD PHASE

1. Attainment of ideal archform and co-ordination of arch width.
2. Attainment of desired torque.
3. Precise intercuspation and functional harmony.
4. Optical facial and dental esthetics

GOALS OF FINAL PHASE

1. To antagonize the movement of the teeth in the direction of their tendency.

2. To allow the teeth freedom of movement in every direction except that towards which they tend to return.


QUESTIONS


Thank You!