Make the Distal Jet Rock Solid with the Bowman Modification

1. Bowman Modification
   Standard Anchorage

2. Horseshoe Jet
   Skeletal Anchorage Support

The standard Bowman Modification is designed to simplify the conversion of the Distal Jet into a modified Nance holding arch with enhanced rigidity. In contrast to the original Distal Jet, the compressed super elastic coil spring does not have to be removed. Once molar distalization is achieved, both set screws are locked to stop the distalizing force and to prevent unwanted anchorage loss from molars slipping mesially. The combination of two locked screws creates a ROCK SOLID holding arch; thereby, helping to insure the gain is maintained. An added advantage to all Bowman Modification appliances is that they are self-limiting. Bonded occlusal rests on 1st premolars, instead of orthodontic bands, can be used as bite blocks to open the bite and facilitate distalization. Like all Distal Jets, the Bowman Modification serves two purposes with one appliance: molar distalization and then holding the molars during subsequent retraction mechanics.

The Horseshoe Jet is a unique distalization appliance that completely relies upon palatal mini-screws for anchorage. This pure skeletal anchorage eliminates reliance upon questionable dental and palatal vault support and any attendant anchorage loss. This design still benefits from forces that are applied, through a couple, closer to the center of resistance of the molars; a hallmark of the Distal Jet. As a consequence, there is dramatically less adverse molar tipping compared to other distalizers. Although mini-screws may be placed in either the anterior or posterior palate, the recommended location is in the lingual alveolus between the 1st molar and 2nd premolar. When mini-screws are inserted on the lingual alveolus there is more favorable bone, more attached gingiva, and less likelihood of touching a root at this palatal insertion point; resulting in a lower incidence of mini-screw failure compared to other locations. The typical acrylic Nance button or bulky framework featured in many distalizing devices is absolutely unnecessary with the Horseshoe Jet.

Anchorage is strictly derived from the mini-screws as they are tied to hooks on the horseshoe-shaped tracking wire using stainless steel ligature wire. In addition, all hex screws can be loosened to adjust the mesial/distal position of the tracking wire as desired during treatment. Since the integrity of the mini-screws are completely independent from the appliance construction, the stability of each one can be easily tested and, if necessary, a failed screw can be easily removed and replaced in any number of alternate locations (even in the anterior palate) without having to fabricate a new appliance. At the completion of distalization, the distal hex screws are locked onto the tracking wire to stop the process and the open coil spring is simply left in place. The Horseshoe Jet then serves as indirect anchorage to resist mesial movement of the molars during retraction of the remaining maxillary teeth. In this manner, mini-screw anchorage is available during both molar distalization and subsequent retraction of the remaining maxillary teeth: one mini-screw based Horseshoe Jet serves two purposes.
Bowman Distal Jet Innovations
ONE APPLIANCE - TWO PURPOSES
MOLAR DISTALIZATION - SUBSEQUENT RETRACTION

Bowman Modification

CONVERSION TO HOLDING ARCH AFTER DISTALIZATION SIMPLE AS 1-2-3

Horseshoe Jet

PURE SKELETAL ANCHORAGE WITH MINISCREWS