

The “Winding Wizard”

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All-metal rapid palatal expanders (RPEs) have taken on new popularity in the last few years. This is due to the rapidly growing consensus among orthodontists that arch development is an excellent way to create space for

those patients developing dental crowding. The philosophy of arch development can be divided into two topics: (1) appliance design and (2) when and what to do. This article will discuss appliance design.

I have been developing dental arches since 1977 and have used numerous appliances, both fixed and removable. One year ago I redesigned the RPE, and the new design has been so successful that I named it the “Winding Wizard” (a less ominous name the children seem to like). The design is not only comfortable for the patient, giving it high patient acceptance, but it is very efficient in developing arches.

Benefits of the Winding Wizard

1. Construction entails only two solder joints. Many commercial labs use four solder joints.
2. Elimination of two solder joints makes the appliance easier to clean.
3. The configuration of the wire leading to the first molars has multiple advantages:
 - a. Adjustments possible at time of insertion.
 - b. Ease of insertion (there is a small amount of movement that can take place), which the patients appreciate.
 - c. Less soreness 24-48 hours post-insertion.
 - d. Easier to clean.
 - e. Less tipping of the molars during activation.

4. The screw (Leone 13 mm screw) can be used in almost all cases, which reduces inventory.
5. Patients who press their tongue on the appliance and place an imprint on the tongue experience fewer problems with this design.

Inserting the Winding Wizard

1. Trial fit and make necessary adjustments.
2. Microetch molar bands. I use Ormco Washbon molar bands because of their

strength.

3. Remove hooks from molar tubes.
4. Cement with light-cure glass ionomer cement.

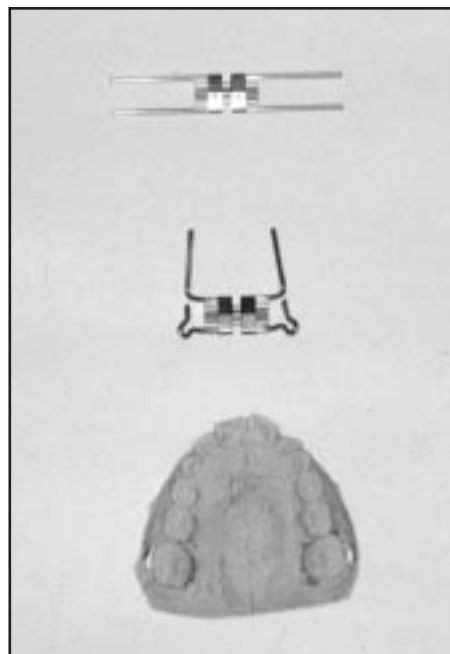
Dr. Saul Burk received his D.D.S. from the University of Maryland and his M.S. and certificate in orthodontics from Georgetown University. He was an assistant professor of orthodontics at Georgetown University for 11 years. Dr. Burk is in private practice in Gaithersburg and Olney, Maryland.



Three-prong plier, wire cutter, model with molar bands in place, RPE.



Soldering appliance.



Appliance before and after custom bending.



Appliance cemented in patient's mouth.