

Denture Repair Kit

Cast partial repairs are a common task in many dental labs, but patients wearing these partials often lose supporting teeth. In addition, clasps and extrusions break from adjustments or simply from metal fatigue.

To help alleviate this, laboratory technicians add retention for teeth and add wrought wire clasps in a variety of methods. Sometimes there is sufficient acrylic base where wires can be embedded and, occasionally silver solder can be used for repairs, but this usually involves replacing all the teeth. Laser and phaser welding are an excellent method to add retention and clasps. Unfortunately,

not every laboratory technician has access to these expensive welders.

This partial fix technique describes an alternative, economical method to repair many types of cast partials.

In this example, the lower cast partial needs new teeth to replace No. 22 and No. 31 and needs clasps for No. 23 and No. 32. However, the partial still fits the patient well. An economical solution to repair this partial would be ideal.

Repairs demonstrated below are made using the Partial Fix Denture Repair Kit from Dental Creations, Ltd. This kit comes with an assortment of bolts, nuts, washer strings, and wires. Clasp and retention wires are already attached to washers and nuts. Bolt heads have a low profile that can be reduced even more if needed. A .050 hex driver is included to facilitate tightening. The kit contains parts for approximately 10 repairs.



STEP 1:

To begin the repair, the old clasp which engaged the now missing tooth No. 22 is removed.



STEP 2:

A flat surface is prepared on the lingual plate using a large carbide bur. Then a No. 4 carbide bur is used to drill a hole.



STEP 3:

The hole is then enlarged using a tapered carbide drill.



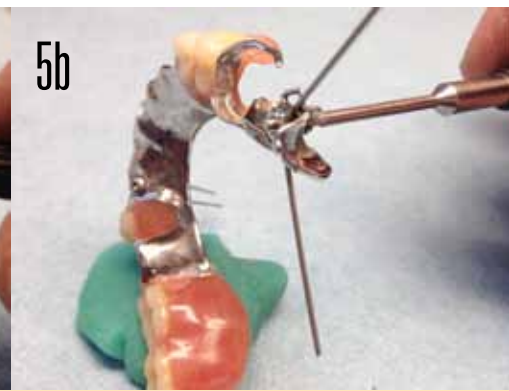
STEP 4:

Fixation bolts, nuts and washers with an attached clasp wire are selected.



STEP 5:

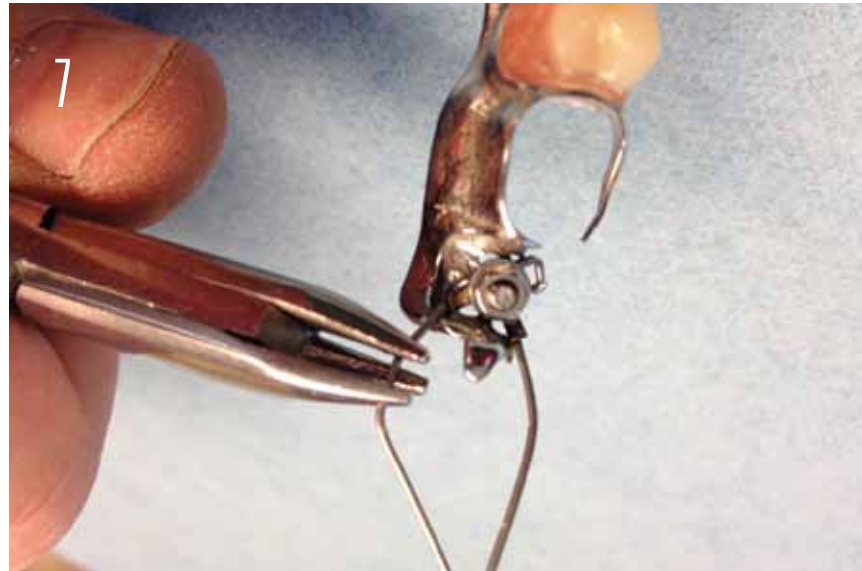
These are attached using a .050 hex driver. Note the low profile of the bolt head.





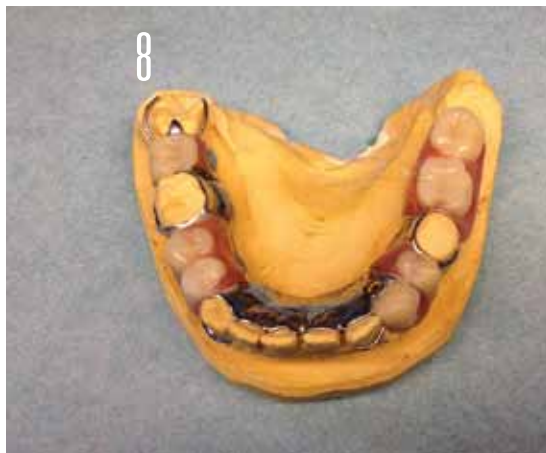
STEP 6:

Three point clasp pliers are used to bend the clasp into the desired position. A retention loop is then made to support the new denture tooth.



STEP 7:

Clasp wires are bolted to the mesh saddle area and then bent into position.



STEP 8:

The partial is then seated back onto the model. New denture teeth are replaced using acrylic resin. If needed, bolt heads can be adjusted to an even lower profile.

Other types of repairs or modifications are possible using this kit in different combinations as shown above. Still another application of this system (not illustrated) is for the restoring dentist to add these to partials and apply composite intra-orally.



FIGURE 9 shows a clasp and retention loop added to the lingual plate and a clasp added by bolting it to the cast mesh. Mesh is replaced by attaching a washer strip to the remaining mesh and a bolt with loops in the molar area.

JDT

About the Author:

Clark has been a laboratory technician for more than 30 years and maintains a laboratory in Weatherford, Texas where he specializes in dental implant restorations. He is a founding member of the North Texas Center for Osseointegrated Dental Implants, was a member of the advisory board for the dental program at Tarrant County College for more than 20 years and has served as a consultant to various study club groups. Clark is actively involved with the Parker County Dental Health Clinic and has served on the board of directors for the North Texas Premier Dental Forum for two years.

