

Figure 7

Remove the upper cast and select a P.S.P. on the modeling compound in the same manner as the P.S.P. was selected on the last molar as described above.

Position the center point of the Bow Compass on the P.S.P. and apply an arc to intersect the arc from the A.S.P. as illustrated.

**G.** Alternate to the molar P.S.P. is a position on the Condylar Element of the Articulator, at its anterior intersection with the Condylar Shaft, Figure 8.

Position the center point of the Compass on this condylar posterior survey point (C.P.S.P.) and apply an arc to intersect the arc formed from the A.S.P.

**H.** Continue with Figure 7 or 8 by substituting the needle point for the graphite lead. Place the center point of the Bow Compass, still adjusted to the 4" radius, at the intersection of arcs on the Plastic Record Card (initial occlusal plane survey center).

Sweep the the needle point over the occlusal surfaces of the lower posterior teeth to see how the arc conforms to the existing occlusal plane. Shift this occlusal plane survey center (O.P.S.C.) on the long arc on Plastic Record Card, the A.S.P. line, until the most acceptable line and plane of occlusion is found.

To raise the line and plane of occlusion at the distal end, move the center point anterior to the arc intersection. To lower the line and plane of occlusion, move the point posterior of the intersection. By trial and retrial, in ideal survey center forming the most acceptable line and plane of occlusion will be located.

**I.** After thorough and considered study, this will be the best possible line and plane of occlusion for the lower posterior teeth to harmonize with all other factors. The center point of the Bow Compass is now pierced into this ideal O.P.S.C. on the Plastic Record Card and circled with pencil or ink for subsequent relocation. It may be advantageous to mark "R" (right) in the upper corner of the Plastic Record Card for identification, Figure 9.

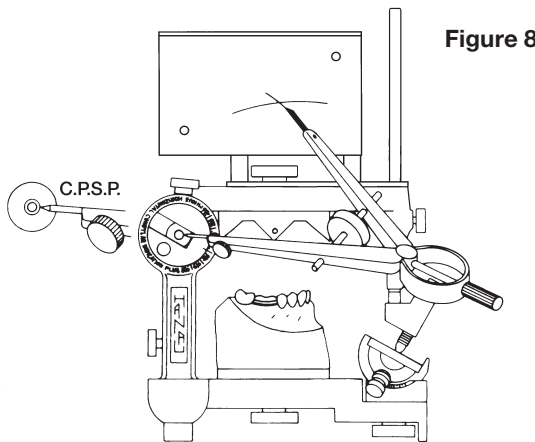


Figure 8

**J.** A Plastic Record Card is then place over the dowels on the left side of the Card Index and marked "L". Repeat the survey procedure, commencing with Step E, Figure 6.

The Scribing Knife, as furnished, is for placement into the Bow Compass for scribing or cutting plaster, compound or wax during the occlusal plane correction. The edge of the Scribing Knife may be sharpened to individual requirements as the edge supplied may not meet your preference.

This instruction has described the mechanical function of the Broadrick Occlusal Analyzer. We strongly urge the reader to refer to other reference material as well as classes devoted to the clinical application of this procedure in occlusal correction.

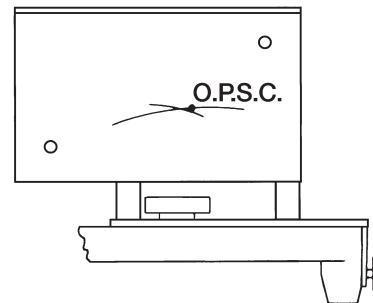
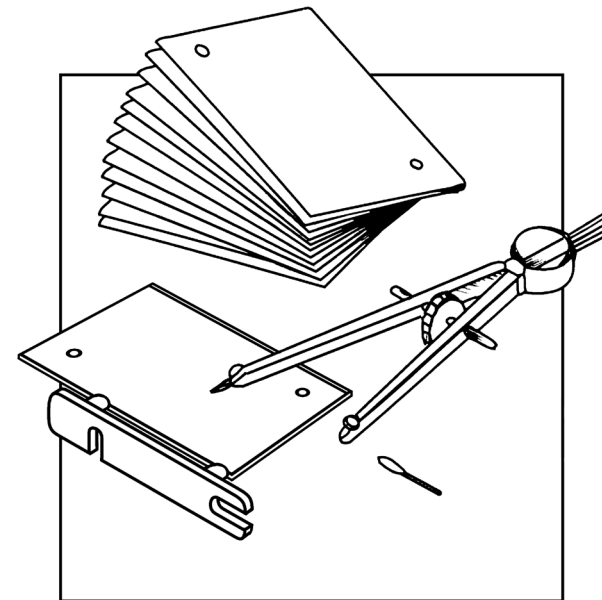


Figure 9



# BROADRICK OCCLUSAL PLANE ANALYZER



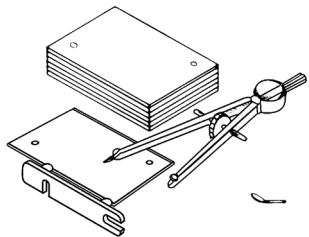
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**THE BROADRICK OCCLUSAL PLANE ANALYZER,** Cat no. 006901-000, is used for analyzing the Curves of Spee and Wilson to develop an acceptable curve of occlusion.

A flag or semaphore is common to the art of dentistry and has been used and described many times in writings and teachings over the years. Here, then, is a practical device which is used in conjunction with Hanau™ and Denar® Articulators.

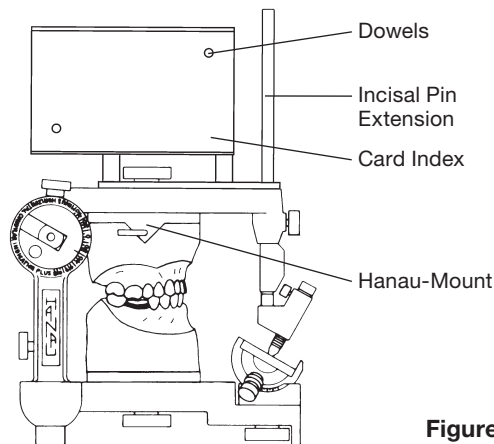
**Figure 1**



A Broadrick Occlusal Plane Analyzer, Figure 1, consists of (1) Card Index 142-101, (1) Bow Compass 142-1001 with graphite leads, an extra center point and a needle point, (1) Scribing Knife 142-3201 and (12) Plastic Record Cards 142-3401.

The maxillary cast shall have been mounted by a Facebow transfer and the mandibular cast mounted in centric relation.

The accessory Hanau-Mount Split-Cast Mounting Plate is illustrated on the Upper Member of the Hanau Articulator A. This split cast allows rapid cast removal and accurate replacement during the survey. It also provides a visual guide for adjustment of the Articulator to protrusive or lateral interocclusal relation records.



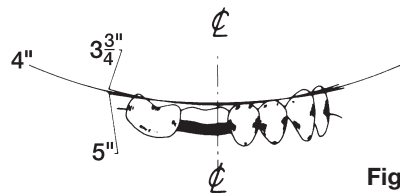
**Figure 2**

**ANALYZER PREPARATION:**

**A.** Place the Card Index onto the Upper Member, Figure 2, with the open end around the incisal pin and the slot on the side around the mounting plate thumbscrew. Tighten the thumbscrew to hold the Card Index in place. The Card Index works with both Denar® and Hanau™ articulators.

Should an Orbitale Indicator be mounted to the articulator, it must be removed in order to mount the Card Index.

**B.** Press a Plastic Record Card over the dowels on the right side of the Card Index. The Cards are matte finished on both sides and readily accept pencil or ink markings.

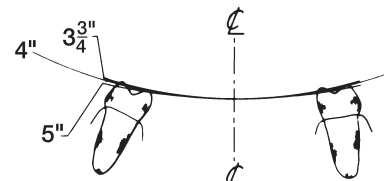


**Figure 3**

**C.** The relatively small divergence between arcs of 3-3/4", 4" and 5" radii over the functional occlusal surfaces on the

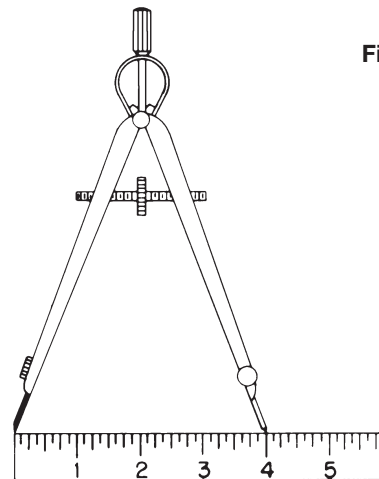
lower posterior teeth is shown in Figure 3. An average of a 4" radius may be used in the majority of surveyed cases.

Variation is necessary only when a pronounced Curve of Spee requires a 3-3/4" radius or a flat Curve of Spee may require a selection up to a 5" radius.



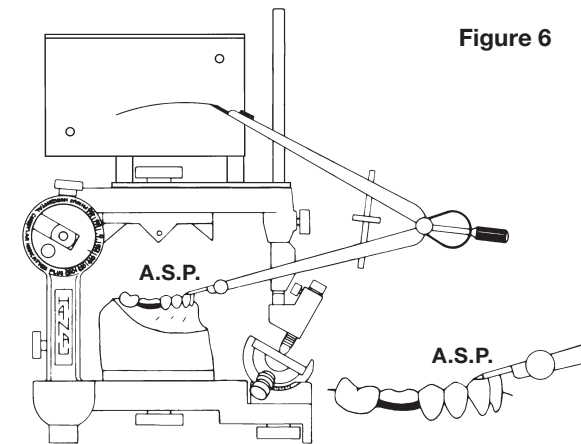
**Figure 4**

A view through both lower second molars, Figure 4, illustrates the small divergence between arcs of these three radii at the functional occlusal surfaces on the Curve of Wilson.



**Figure 5**

**D.** Withdraw the Tapered Pin from the Hanau-Mount Split-Cast Mounting Plate and remove the upper cast. Insert a piece of graphite lead into the Bow Compass, tighten the Thumbscrew and sharpen lead to a suitable point. Adjust the Compass to a selected radius, in this example 4", Figure 5.



**Figure 6**

**SURVEY:**

**E.** Position the center point of the Bow Compass on the anterior survey point (A.S.P.) which is usually the disto-incisal of the cuspid, Figure 6. If the cuspid is worn flat, the A.S.P. may be at the incisal edge. In any event, this point must be selected as the most desirable to "Beam" the line and plane of occlusion posteriorly. Once selected, it is marked on the cuspid and NOT CHANGED.

With the center point of the Compass positioned on the A.S.P., apply a long arc (about 3") on the Plastic Record Card. The occlusal plane survey center (O.P.S.C.) will ultimately be located on some point on this arc.

**F.** Select the posterior survey point (P.S.P.) at the distobuccal cusp of the last lower molar, Figure 7.

Should no molars exist, replace the upper cast and place soft modeling compound over the lower ridge, closing the Articulator until the Incisal Pin contacts the Incisal Guide in a centric relation. Chill the compound and carve away the excess, leaving only compound contacting into the upper fossae, simulating the lower buccal cusp.