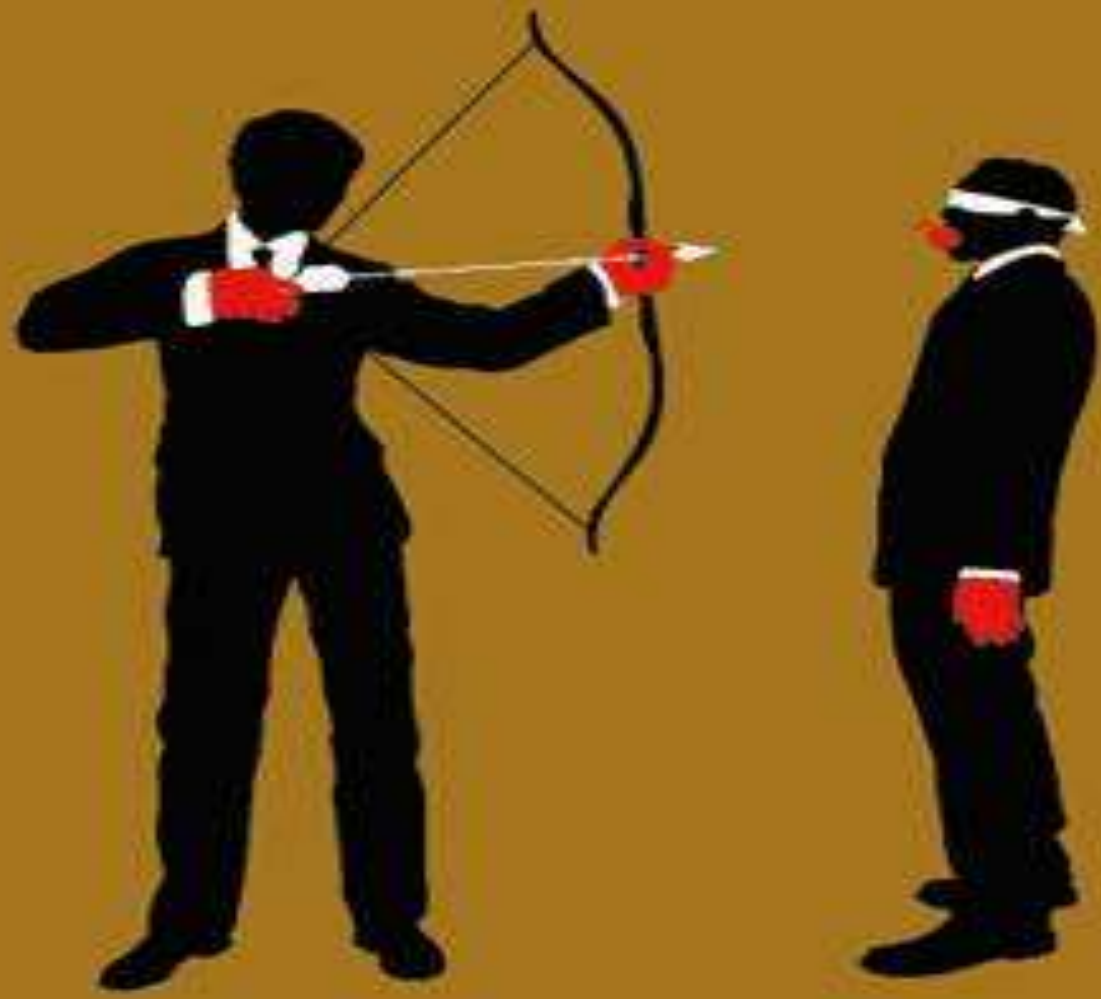
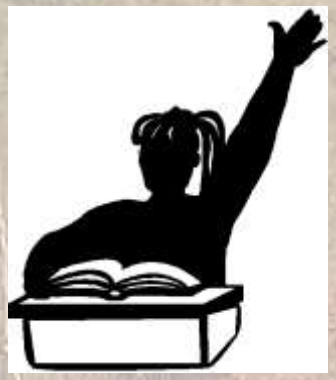
OMSAI RAM


GOOD MORNING

- ORIENTATION JAW RELATION



- **FACE BOW?**



DEFINITIONS

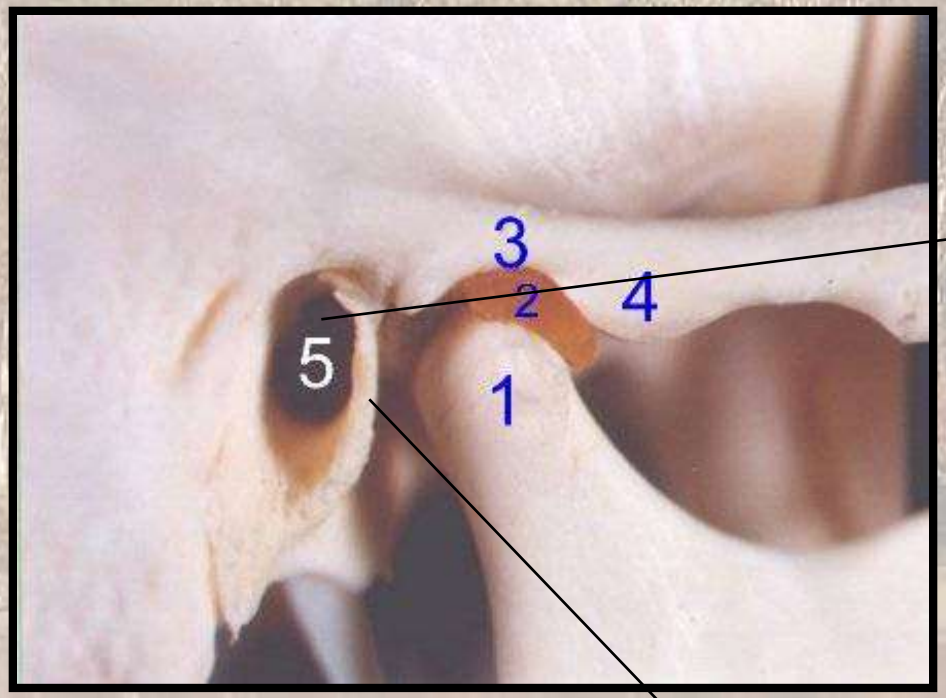
FACEBOW(GPT)- 8: a caliper like device used to record the spatial relationship of the maxillary arch to some anatomic reference point/points which then transfers this relationship to an articulator;it orients the dental cast in the same relationship to the opening axis of the articulator.

FACE BOW RECORD: registration obtained by means of a face bow.

FACE BOW TRANSFER: process of transferring face bow record of the spatial relationship of the maxillary arch to some anatomic reference point or points and transferring this relationship to the articulator.

TERMINAL HINGE AXIS: /TRANSVERSE HORIZONTAL AXIS (GPT 8) –an imaginary line around which the mandible may rotate within the sagittal plane .

TRAGURS ‘n’ EAM



E A M

Tragus

WHY RECORD AND TRANSFER HINGE AXIS

- To allow the CR records to be accurately mounted.
- It's the starting point of lateral movements.
- Permits vertical dimension to be changed.
- To reproduce the opening and closing movements of mandible.

BENEFIT : diagnosis and treatment planning of mounted casts.

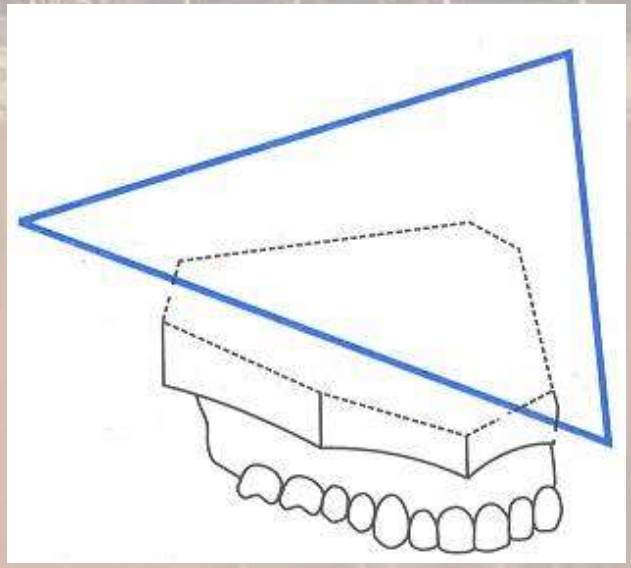
PLANE OF ORIENTATION

Maxillary cast can be oriented in relation to the plane known as **POO**

POSTERIOR REFERENCE POINTS:

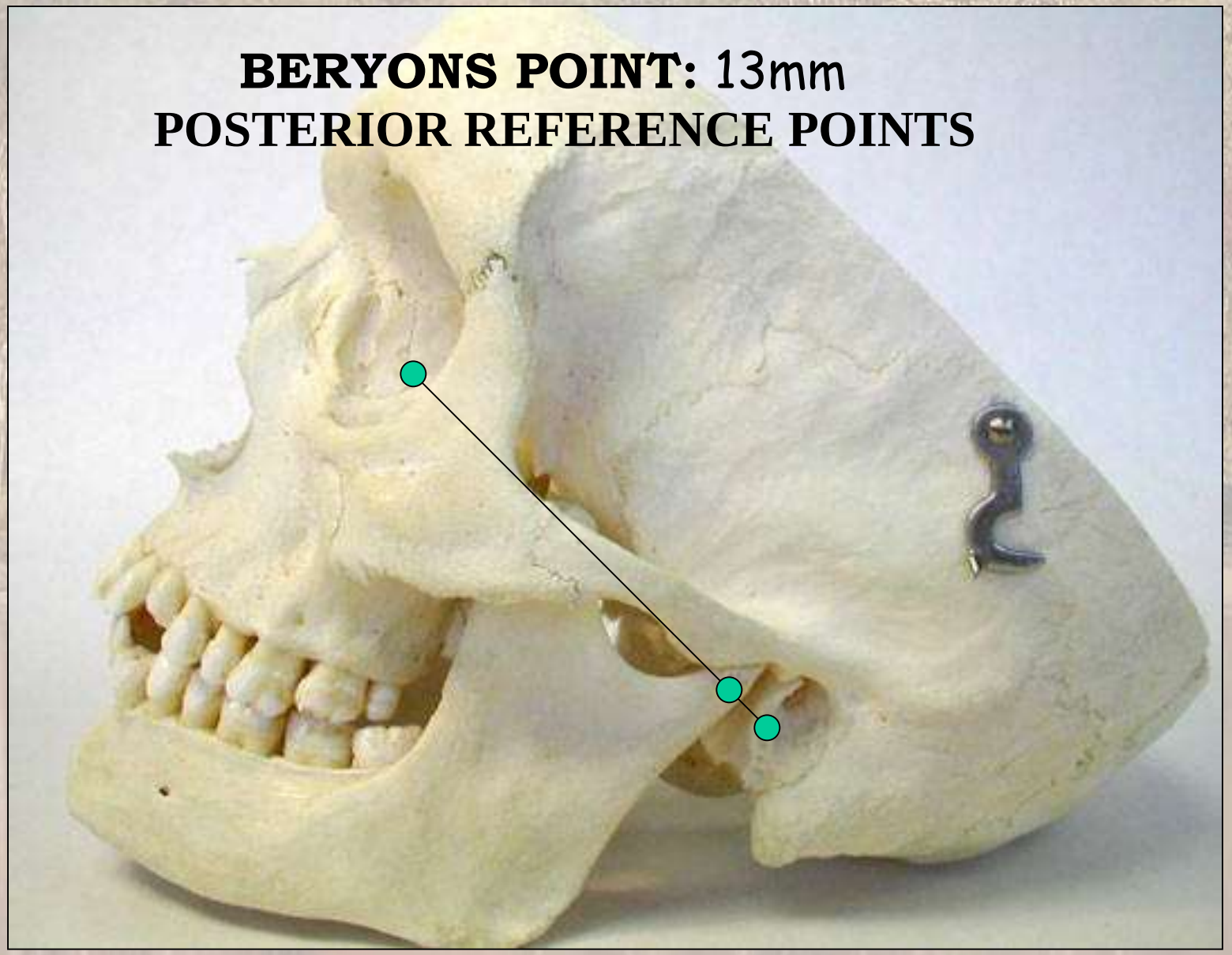
PLANE OF ORIENTATION

ANTERIOR REFERENCES POINTS:



BERYONS POINT: 13mm

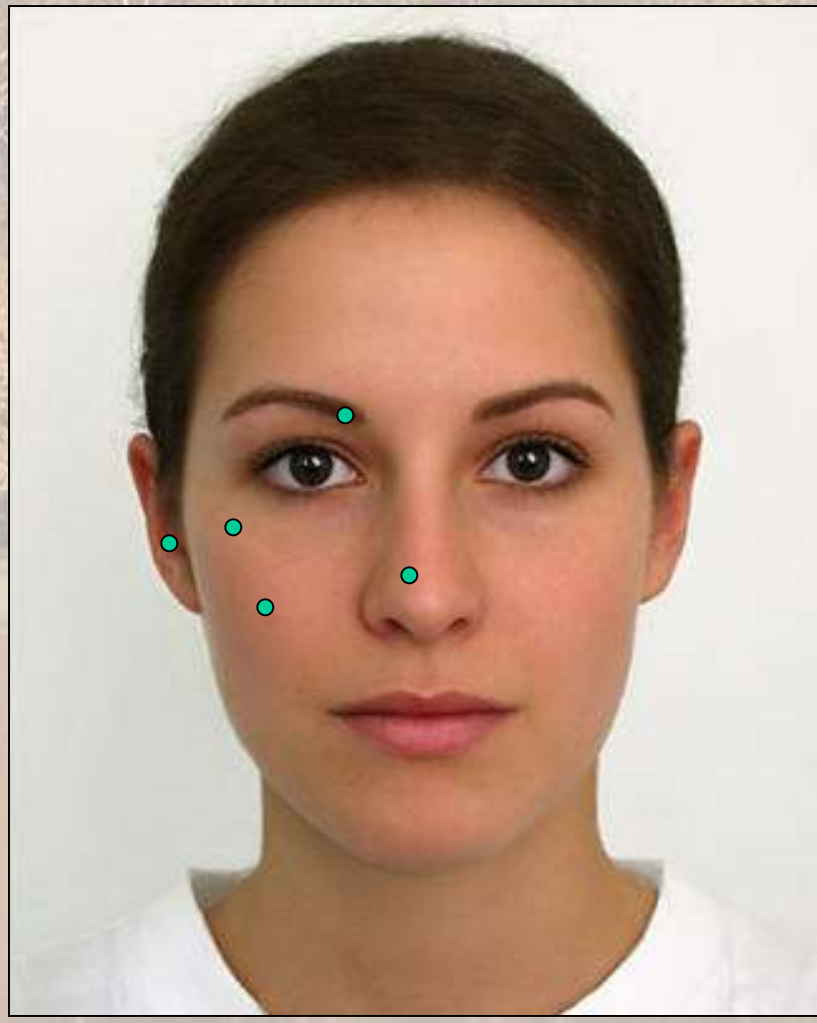
POSTERIOR REFERENCE POINTS



ANTERIOR REFERENCES POINTS

- Determines which plane in the head will become the plane of reference.
- Determines the level at which the casts are mounted.

Orbitale Located by Hanau facebow with help of orbital pointer



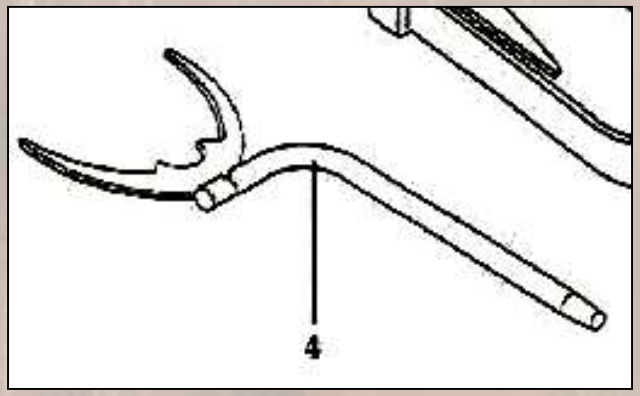
- Nasion Used with quick mount facebow (Whip mix)
- Ala of nose This plane represents campers plane
- 43 mm superior from lower border of upper lip (Denar reference plane locator- Denar facebow uses this reference point)

Reasons for selecting an anterior point of reference

- When 3 points are used different maxillary casts of same pt. can be positioned in the same relative position.
- Allows to visualize anterior teeth and occlusion in the articulator in same frame of ref.

PARTS OF A FACE BOW

- The face bow is an accessory that comes with each articulator.
- It is composed of several adjustable pieces that are assembled together.
- Basically it is constructed in 3 bars, 1 anterior, 2 lateral.
- Face bow frame.
- Ear rods.
- Orbital pointer.
- Bite fork.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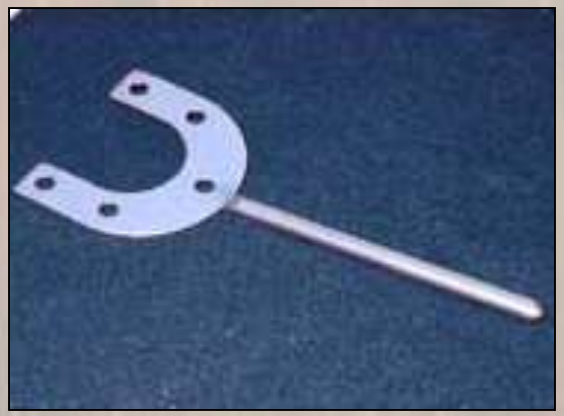


- To the anterior bar are attached the stem of a mouth fork or clutch.
- The lateral bars are perpendicular mounted on the anterior bar.
- The distal extremities of each lateral bar close to the TMJ:

➢ have a stylus to be related to the hinge axis point marked on each side of the face of the patient.

➢ ear piece to EMA

CLASSIFICATION/GROUPING

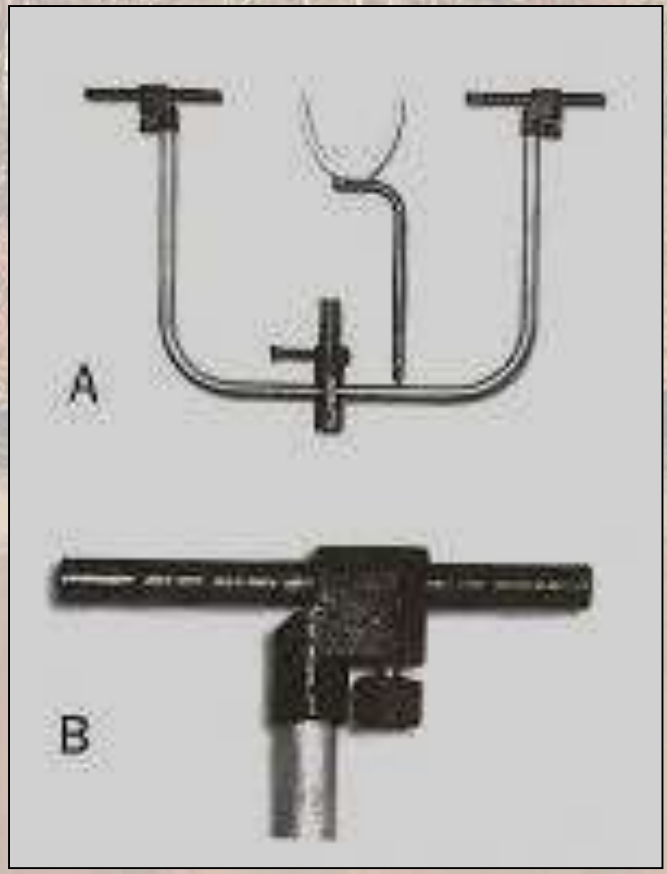
- **Arbitrary face bow/empirical/anatomical.**
  - -fascia type
  - -earpiece type
  - -With orbital indicator.
  - -With nasal indicator.
- **Kinematic face bow/physiologic/hinge.**

GROUPING

- ✓ **ARBITRARY FACE BOW:**

- o Uses arbitrary or approximate points on the face as the posterior points and Condylar rods are positioned on these point.
- o They are **widely used** type of face bow
- o Used for fabrication of most complete denture, fixed partial and removable partial denture.
- o Many studies have shown that a small error in location will have a negligible effect at the occlusal level.

- ✓ **FACIAL TYPE :**
  - o The facial type of face bow utilizes approximate points on the skin over the Temporomandibular region as the posterior reference points.(center of rotation of condyles)
  - o These points are located by measuring from certain anatomical landmarks on the face.

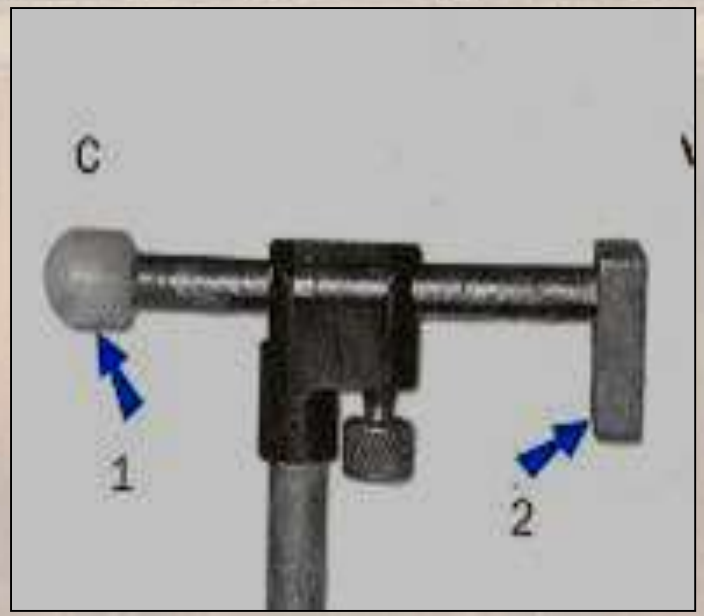


POINT OF LOCATION

F-H PLANE:13mm

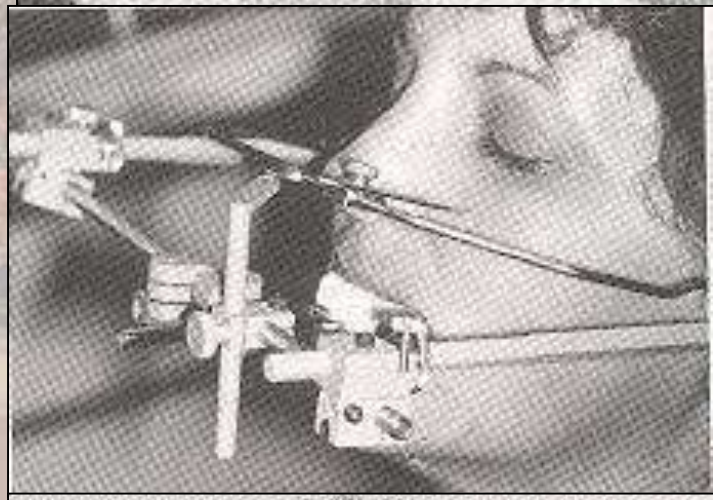
✓EAR PIECE TYPE :

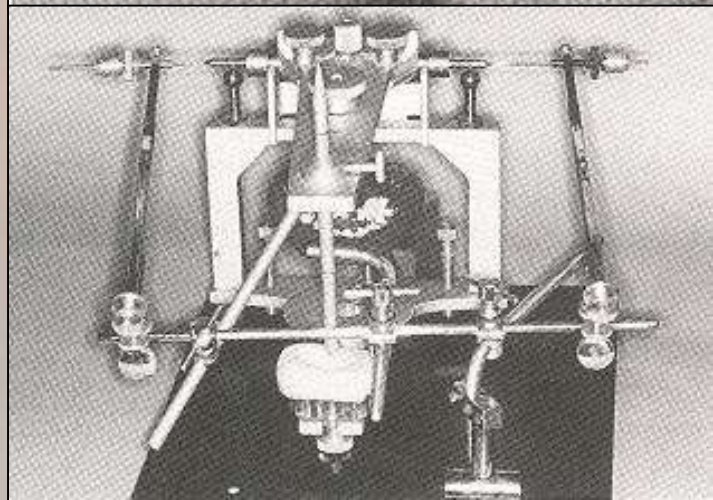
- First described by **Dabley in 1914.**
- However it was only during the early 1960: that it gained the popularity.
- This type of face bows uses the external auditory meatus as an arbitrary reference point.



Kinematic face bow transfer

- Impression on face bow fork
- FB attached to the fork
- Styli aligned with HA mark
- Pt in same position
- Pointer device
- Face bow transfer to articulator





Steps in facebow recording

GENERAL STEPS

The following steps apply for all facebow procedures :

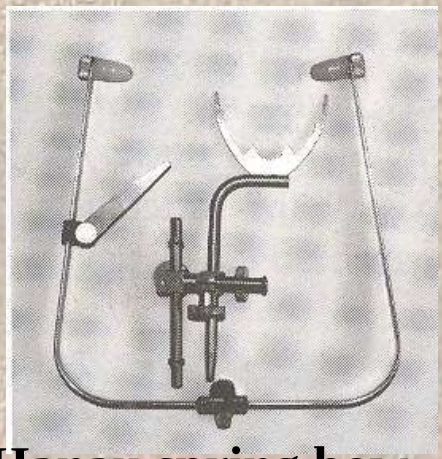
- Preparation of bite fork
- Orientation of face bow to bite fork and reference points
- Orientation of face bow to articulator.
- Attachment of maxillary cast to articulator

HANAU FACEBOW TRANSFER :

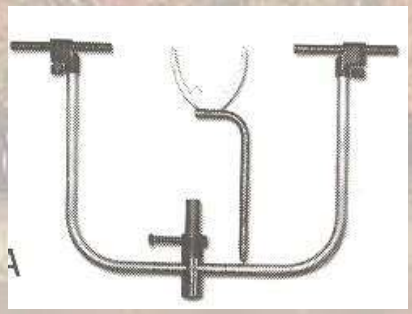
Is used to orient the maxillary cast to articulator.

Commonly used face bows:

- Hanau fascia type and earpiece type FB.
- Hanau twirl bow - transfer jig.
- Hanau kinematic facebow requires extendable condylar shaft.



Hanau spring bow



Hanau fascia bow

Facebow frame

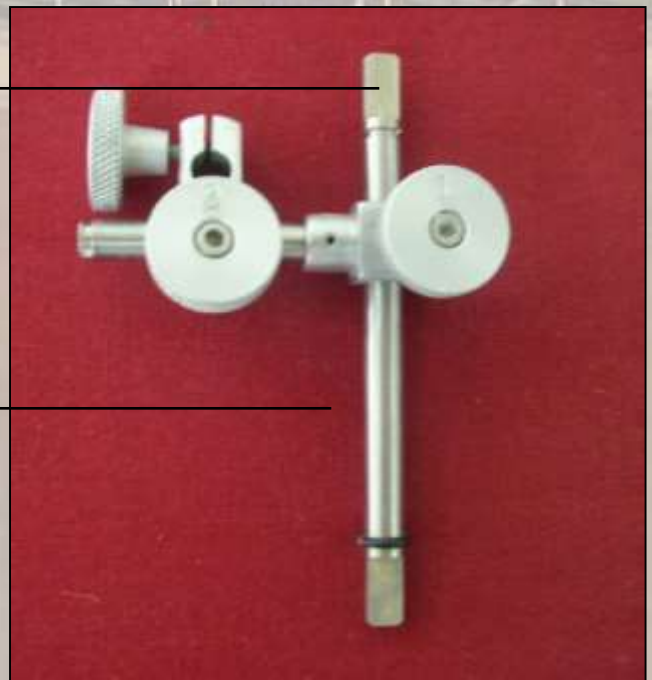
Ear rod

Pointer

Center piece

Flat surface

Vertical n horizontal rod
With thumb screws



MOVEMENTS

1. Vertical/horizontal rod.
2. Transverse rod clamp.
3. Bite fork clamp.

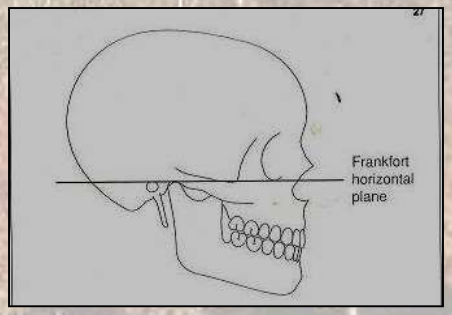
Bite fork

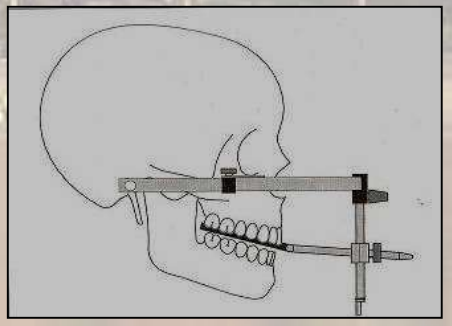
Transfer jig

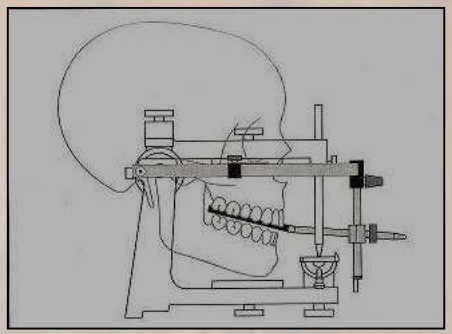
.

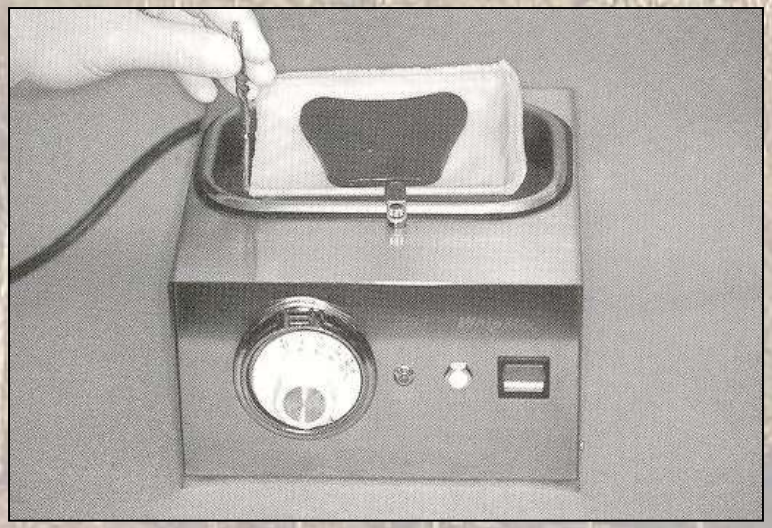
When using a Hanau Face Bow

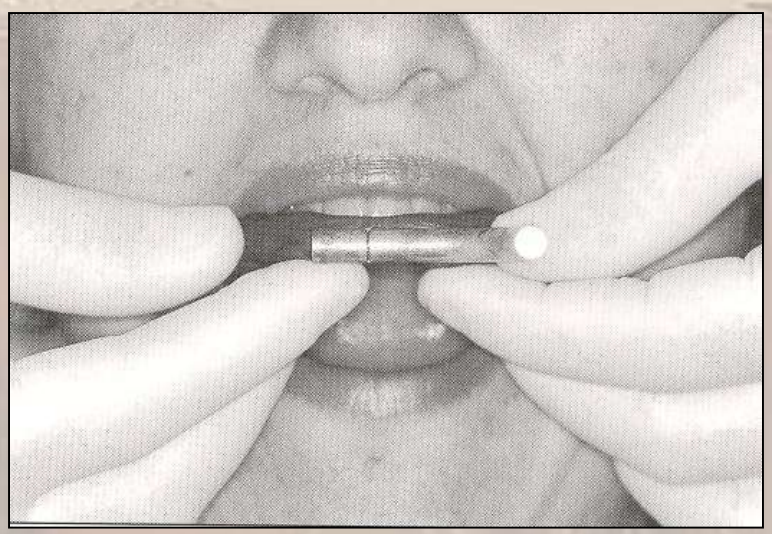
- Infraorbital notch serves as a anterior point of reference.
- Plane established by the external auditory opening & Infraorbital notch
- Face bow is used to record the position of the maxillary arch.
- The spatial information is transferred to the articulator.

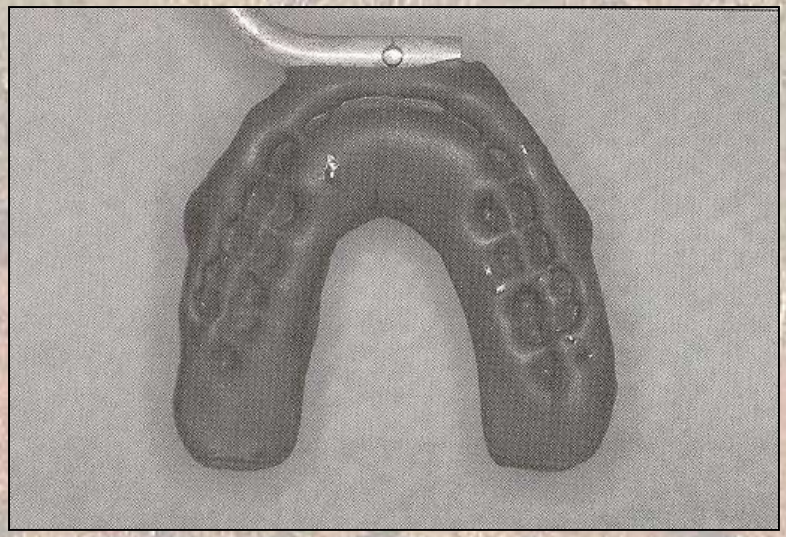


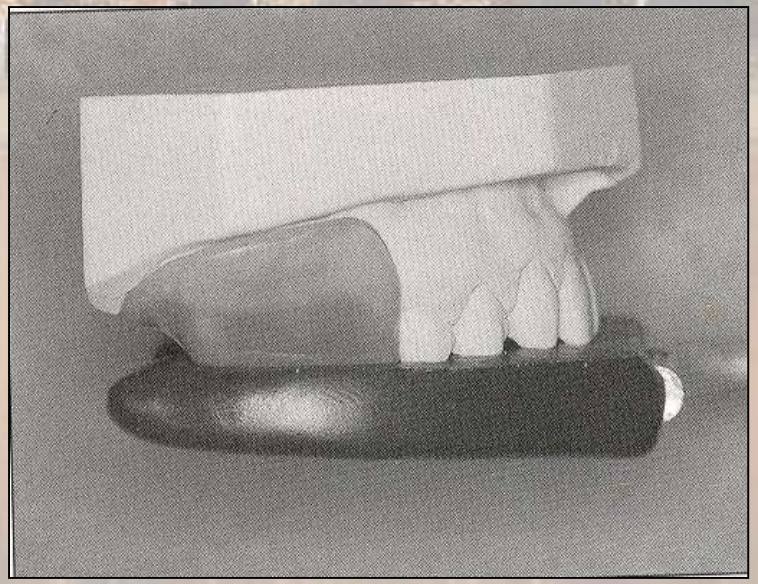


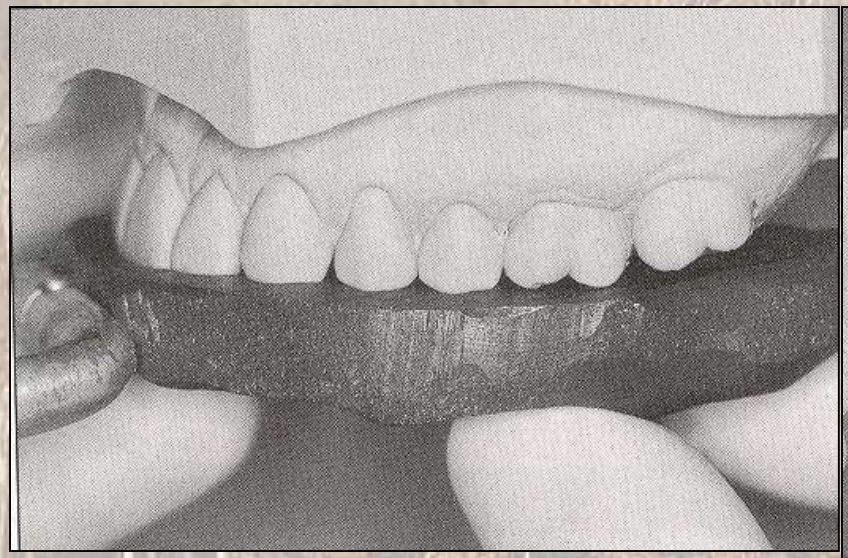


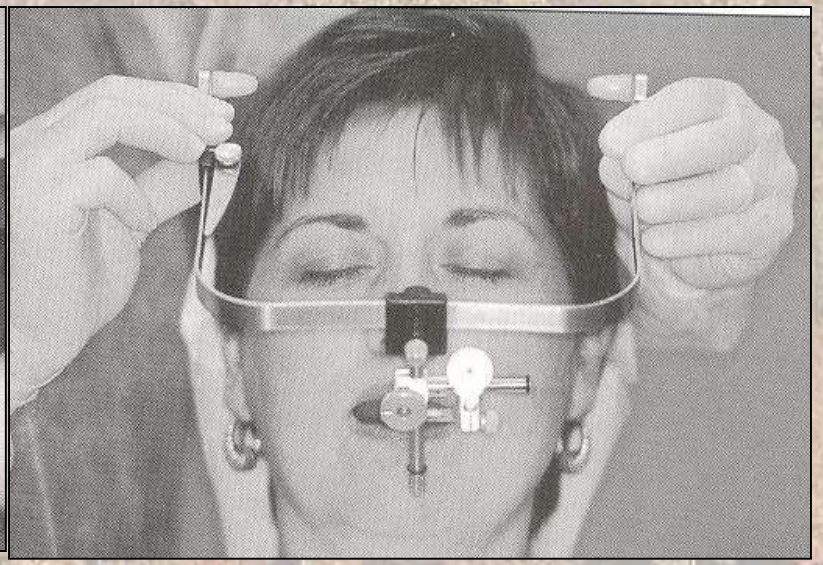


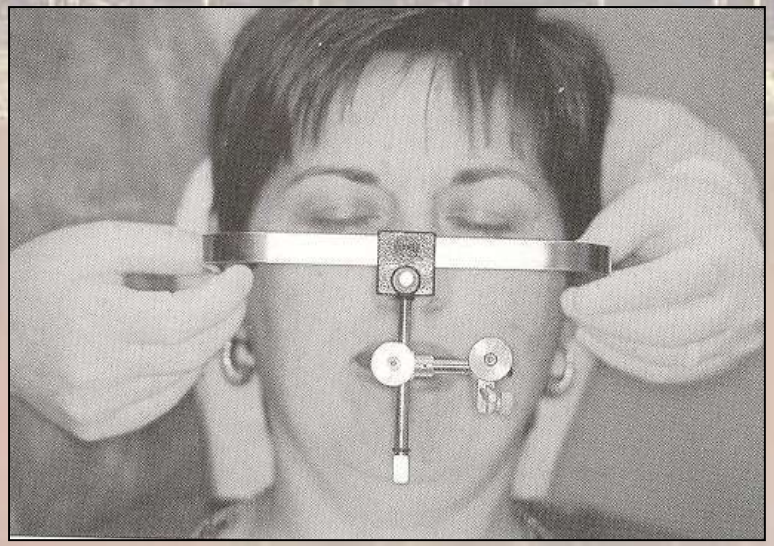


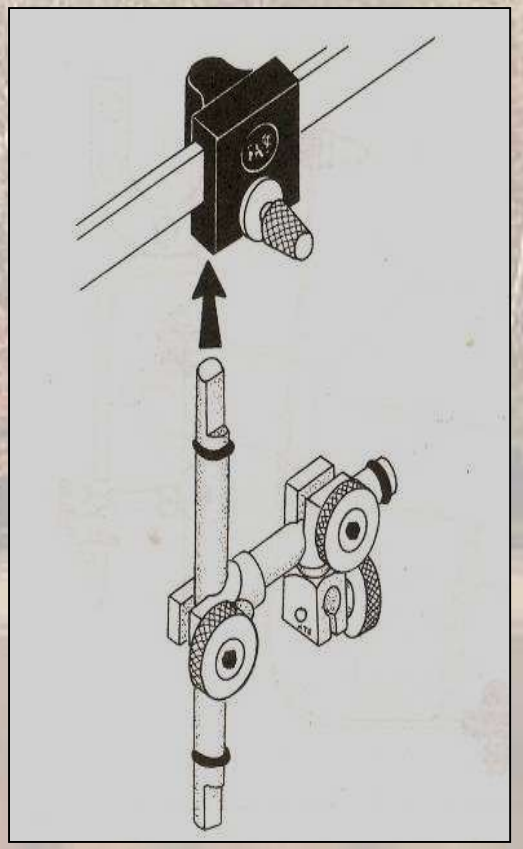


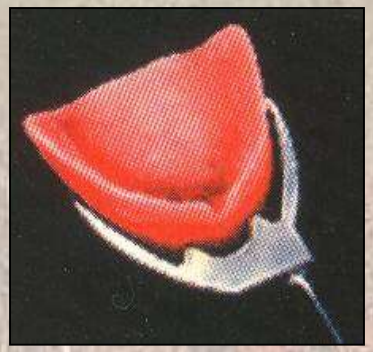


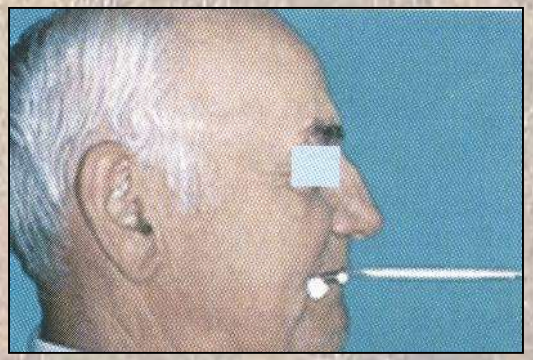


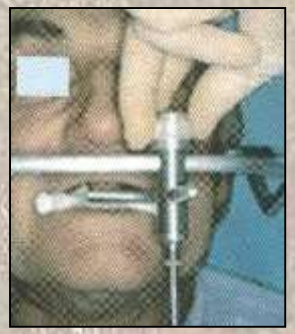


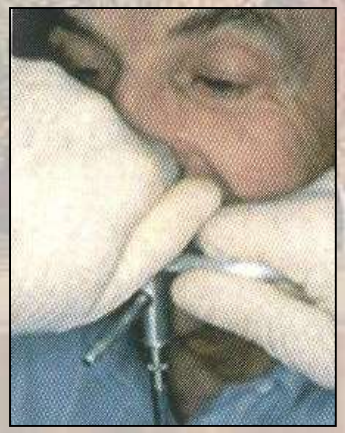


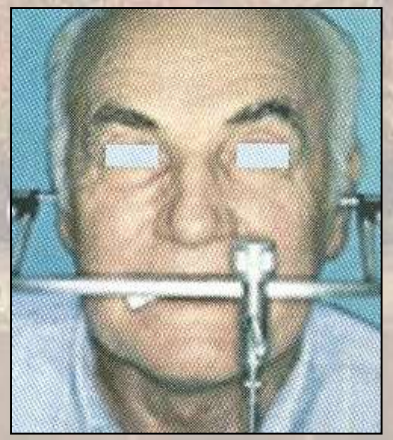


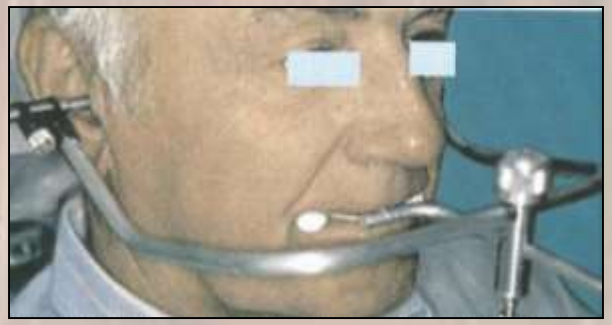


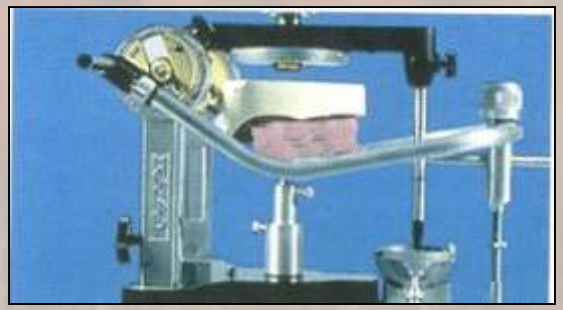






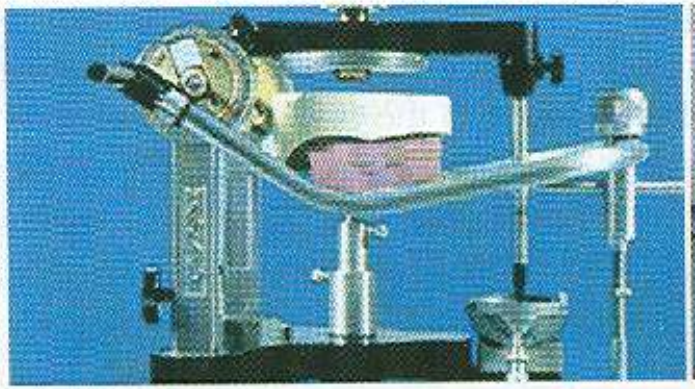






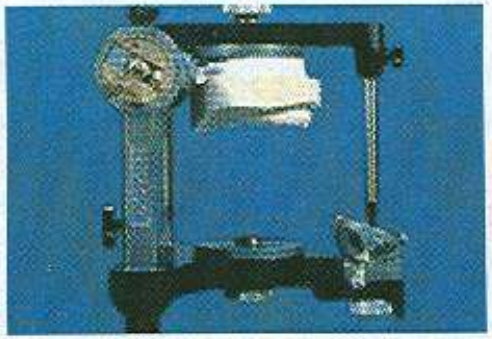
SHARP KNIFE MAY BE USED TO CUT THE INDEX.

8. THERE ARE MANY WAYS OF INDEXING THE CAST. PETROLEUM JELLY IS LIGHTLY APPLIED OVER THE INDEXED PORTION.



9. THE BOW IS CENTERED IN THE ARTICULATOR. THE EARPIECES ARE THEN COUPLED WITH THE AUDITORY PINS WHICH IS LOCATED 12 MM BEHIND THE HINGE AXIS OF THE ARTICULATOR. A PLANE OF ORIENTATION IS SELECTED. IN THIS CASE THE OCCLUSAL PLANE COINCIDES WITH THE MIDPLANE OF THE ARTICULATOR. A CAST SUPPORT HOLDS THE WEIGHT OF THE OCCLUSION RIM AND CAST.

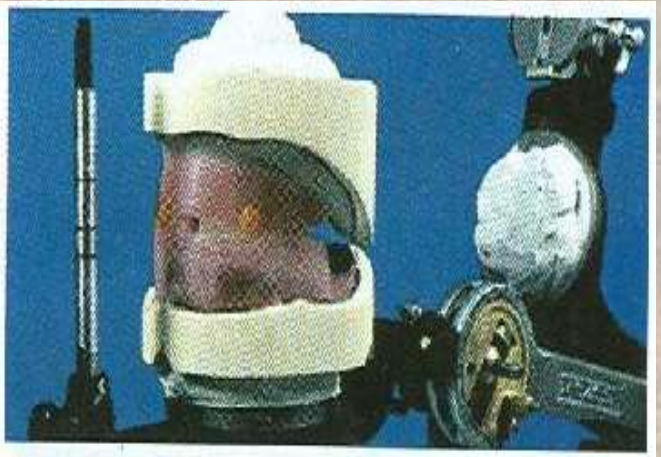
10. MOUNTING PLASTER IS USED TO ATTACH THE CAST.



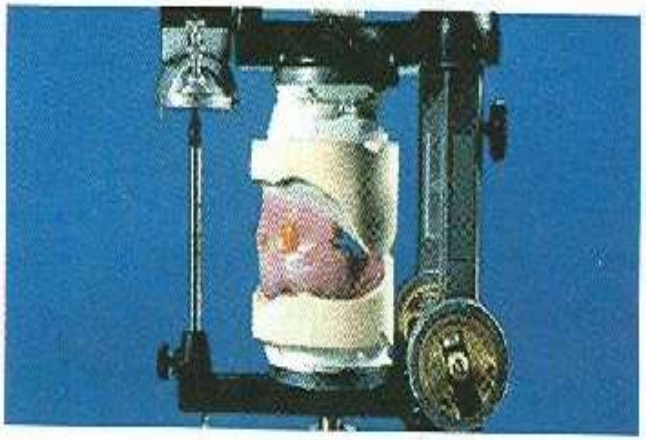
11. THE ATTACHED MAXILLARY CAST.

12. THE LOWER OCCLUSION RIM IS ASSEMBLED ON TO THE MAXILLARY RIM USING THE BITE REGISTRATION RECORD. THE TWO ARE SEALED.

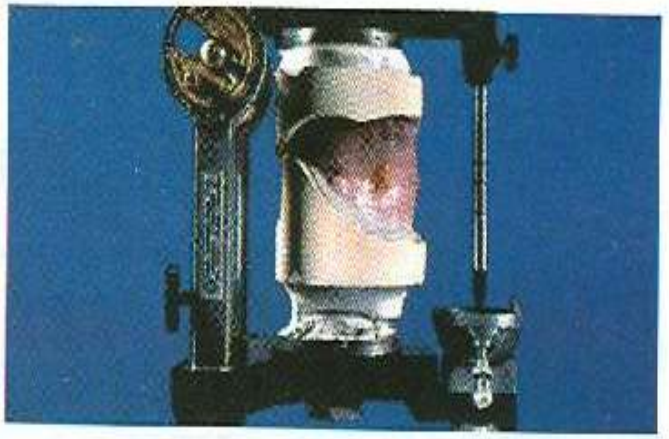
13. THE ARTICULATOR IS TURNED UPSIDE DOWN. THE OCCLUSION RIMS ARE SEATED ON THE MAXILLARY CAST .



14. THE CAST IS SECURED USING MOUNTING PLASTER .

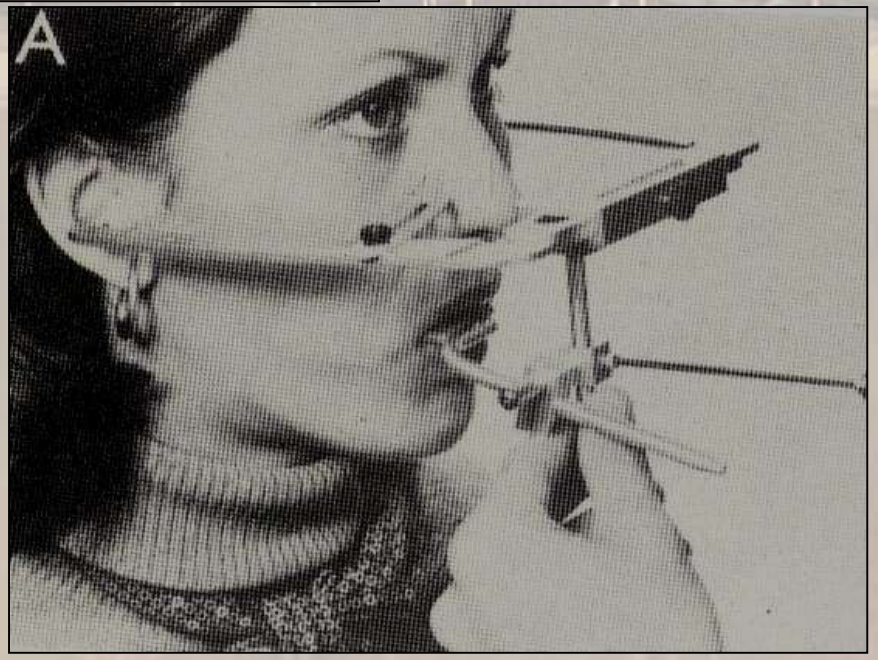


15. THE ARTICULATOR IS HELD UPSIDE DOWN TILL THE PLASTER SETS.



16. THE CONDYLAR GUIDES ARE THEN PROGRAMMED USING PROTRUSIVE RECORDS. THE INCISAL GUIDANCE ARE ALSO SET. THE MOUNTED OCCLUSION RIMS ARE NOW READY FOR TEETH ARRAN-GEMENT.


65min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THANKU