Hand Instruments:

- Production of the rotary instruments make the preparation or the cutting of the tooth structure much easier, faster and much more convenient to the patient.

-G.V black “ father of modern dentistry “ is accredited with the first acceptable nomenclature for , classification of hand instrument and Classification of dental carries.

**Hand instruments are manufactured from two main materials:**

1) **Stainless steel**: doesn’t rust.

 It does not corrode with sterilization.

Disadvantage: Its softer, its cutting efficiency is not as high as the carbon steel.

2) **Carbon steel:** It’s very good, harder and can maintain the sharpness for the longer period of time so the cutting efficiency is high, however it tends to corrode with use.

Note: The best method in sterilization is using the autoclave; machines with a compressed water vapour, work in a high temperature for sterilizing the instruments and resist all the pathogens specially hepatitis (which resist boiling).

-**amalgam manufactured from tin alloy silver, mercury mixed with some additions like copper zinc.**

-when you burnish something you pressurize to adapt to something**,** also used to smooth the surface of freshly placed amalgam restorations.

-There are 4 types of grasps for handling hand instruments:

 1. Modified pen grasps

 2. Inverted pen grasps

3. Palm thumb grasps



1. Modified palm thumb grasps; the same thing of palm and thumb grasp but you set your finger on the same tooth not on the adjacent one.

-**Conventional pen grasps is not an acceptable instrument grasp.**