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.

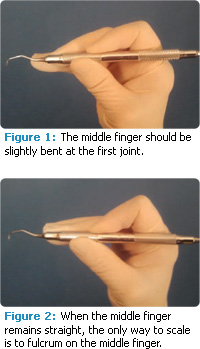
Disadvantage: Its softer, its cutting efficiency is not as high as the carbon steel.

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

[](http://www.google.com.kw/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&docid=JDeEMOsHwX-LfM&tbnid=raBiuFGnt2Io3M:&ved=0CAcQjRw&url=http://www.studyblue.com/notes/note/n/instruments/deck/4616060&ei=Yo42VMSSIcuLOYPXgIgM&bvm=bv.76943099,d.ZWU&psig=AFQjCNGz12w0ogsuhU8_Fk8vqq9nSJbS3w&ust=1412947900926325)

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.**