Introduction:

The action of inserting weft yarn through the warp yarns is called picking. **Picking** is the second primary motion in weaving. Picking motion propels the weft from one end of the loom to the other. The term under pick mechanism means the picking stick moves from the bottom of the box and pivot of the stick is placed below the box. The functions of picking mechanism are:

1. To deliver the shuttle along the correct flight length.
2. To throw the shuttle at a predetermined speed.

Objects:

1. To know the under picking mechanism.
2. To identify the different parts of this mechanism.
3. To learn the construction of under picking.

Main parts of under picking mechanism:

1. Picking arm
2. Shuttle
3. Picker
4. Bottom shaft
5. Picking cam
6. Treadle lever
7. Picking bowl
8. Angular lever
9. Race board
10. Crank shaft

Features of under picking mechanism:

1. Picker arm is placed under the race board.
2. Suitable for wider loom.
3. Under picking works less smoothly.
4. More direct action.
5. Rough in action.
6. More clean mechanism.
7. Consumes more power.
8. Used for heavy weight fabrics in silk and rayon looms.

Under picking mechanism:

In under picking mechanism a race board is situated over the picking arm. Under picking is controlled by picking cam which is fixed on the bottom shaft. At first the motion comes from motor and machine pulley.

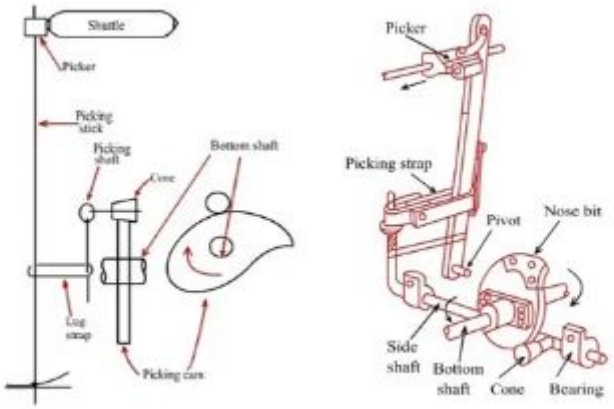

Fig: Under picking

and pushes it then the treadle lever pushes the angular lever. The picking arm gets motion from angular lever which is connected with picking arm.

A picker is placed in the picking arm which pushes the shuttle. When shuttle gets motion by picking arm then shuttle begins to move to and from on the race board. Thus picking is done.

A spring is situated which causes the picking arm and picker to move back after the delivery of the pick. At the two end of bottom shaft, two picking tappets are fixed. By increasing nose length picking speed may be increased.

How to increase PPM (Pick per Minute):

1. By increasing motor seed.
2. By increasing the nose shape of picking **tappet**.
3. By decreasing the length of picking arm.

Uses:

This mechanism is used in all non-automatic cotton looms. It is also used in jute looms.

Conclusion:

This picking mechanism is very important for loom. In the loom under picking is directly done by picker and picking arm. Again under picking is necessary for weft yarn insertion. So we should learn about this mechanism very carefully.