

Practical No-2 - Part

- Part : I

- objective! To change the shape of Iron piece to pointed nail to prepare Garden Rake. (Spoke)

- Material Required!

- 5 Iron pieces

- Cross peen hammer.

- Tong

- Furnace

- Anvil

- Engineering Scale.

- Procedure!

• Take a Iron rod piece and put it into the furnace using tong, and let it get red hot.

• Take out the rod and put it on Anvil and beat it on its front end to change its shape from circular to pointed square shape.

• Do the same thing with other four Iron pieces and make them as the first one.

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Part-2

Objective - To change the shape of a Iron rod to prepare Garden Rake.

Material Required!

- 1 Iron rod
- Hammer
- G.I pipe
- clamp
- Anvil

Procedure!

- Gather all the Instruments and measure the size of the Iron rod.
- Mark the dimensions on the Iron rod as per required measurement and set the Iron rod into the clamp.
- Bend the Iron rod around 45° Inward from both sides and remove it from clamp and mark other dimensions for bending.

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- Again bend it to another end about to 136° and then check the size and hammer it on anvil if it is not straight.

-1 Part-3

Welding!

- Material Required:

- Rectangular metal sheet.
- Ball peen hammer
- Welding materials

- Process:

step 1 Collect all the Instruments.

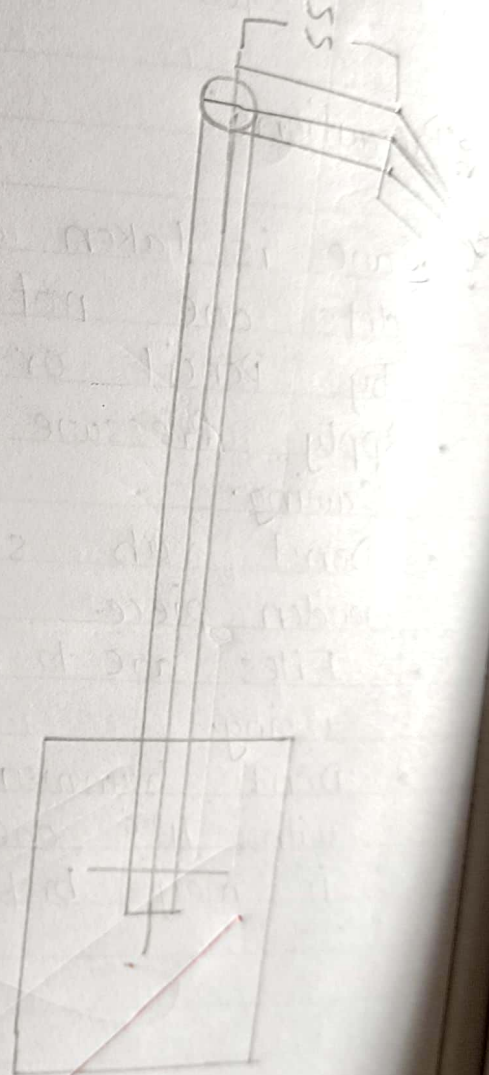
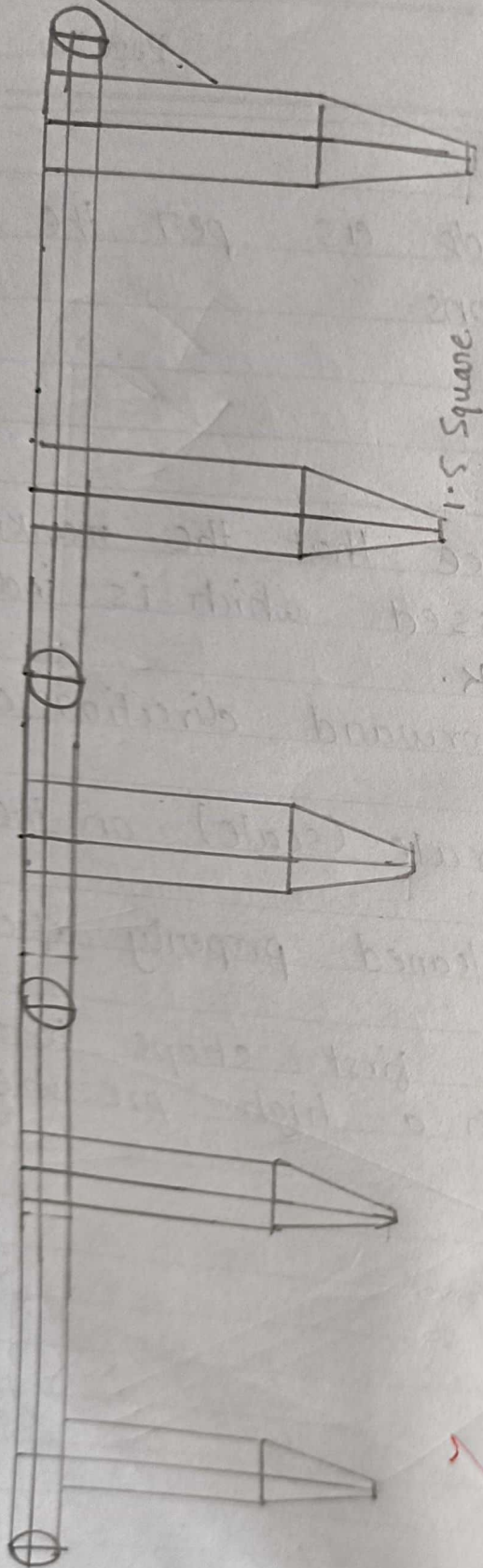
- Take the metal sheet and convert it into Circular metallic sheet. by folding it inwards.

step 2 Approach to Welding shop and weld that Circular sheet to the the lower end of the folded Iron rod. through Electric arc Welding.

step 3. Cool down the ~~ab~~ welded portion and mark the dimension for spoke (5 points) according to the measurement.

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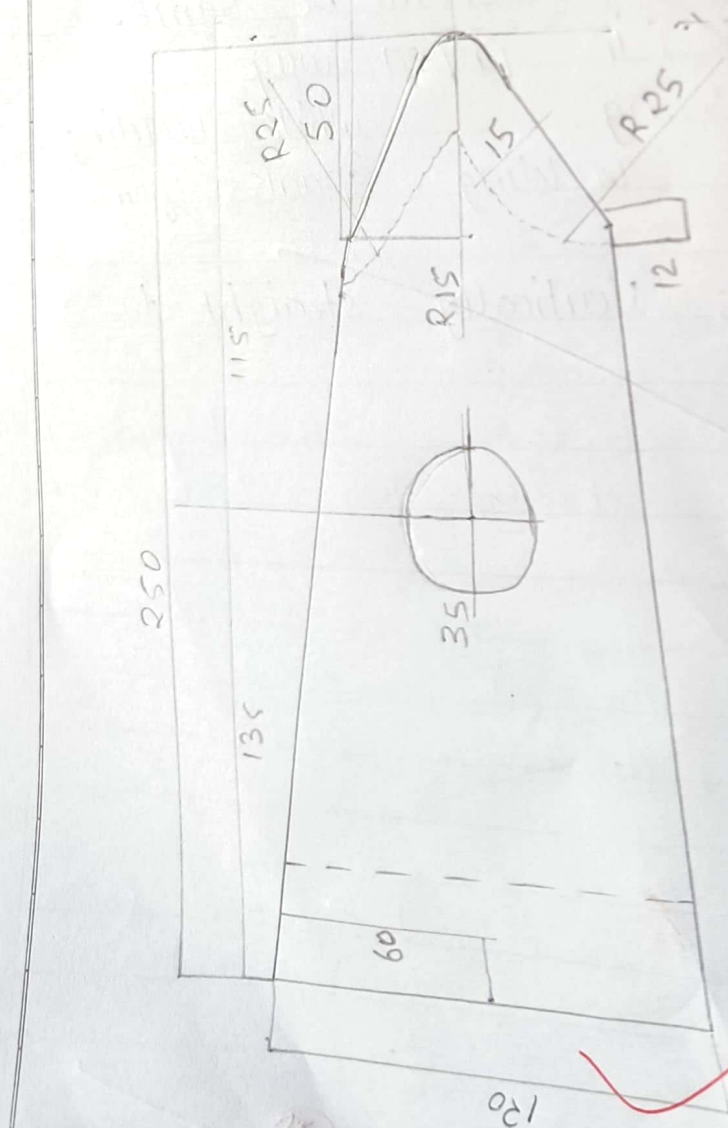
Ø 8 M.S ROD EQUALLY SPACED



steps Weld all 5 spokes properly to the folded metal rod.

- Result - own Garden Rake is prepared as per the desired dimensions.

- precautions:
- dimension (length) of all the spokes should be same.
 - Welding should be in proper way
 - always use welding while welding do not see the welding sparks from the naked eyes.
 - Weld the spokes Vertically straight to the rake.



Garden Hoe Weldment

All dimension are in mm (s are half the actual dimension).

Practical - 3

- Aim: To prepare a Garden Hoe

- Material Required! (or Tools):

- A metal sheet
- & Ball peen hammer
- ~~Scissor~~ Cold chisel
- Engineering Scale
- Divider

- Procedure:

step- Gather all the Instruments and mark the dimensions on the metallic sheet.

step 2 mark out the centre point of the sheet and draw a small circle with the help of Divider according to the measurement.

step 3. Cut out the marked portion ^{and} ~~the~~ ~~rem~~ make a hole using cold chisel in circular form.

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step-4 Again mark on the smaller end of the sheet to make it conical from one side and cut it ~~clown~~ down according to the measurement.