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# CLASSIFICATION OF HARROW

**According to soil working tool**

**Blade harrow**

**Drag harrow.**

- (a) Triangular harrow.**
- (b) Spike tooth harrow.**
- (c) Spring tine harrow.**

**Disc harrow**

**Single action**

**Double action.**

**Offset type**



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# BLADE HARROW

**The blade harrow moves into the top surface of the soil without inverting it.**

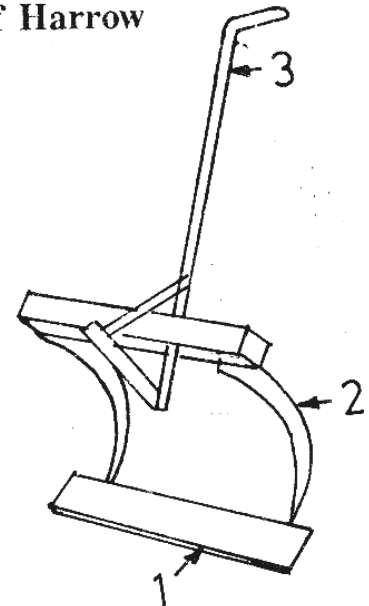
**It is used for pulverization of the soil and to create **soil mulch**.**

**Mostly, the farmers of Central parts of India use it.**

**Pulled by a pair of bullocks**

**Parts of Harrow**

1. Blade
2. Frame
3. Handle

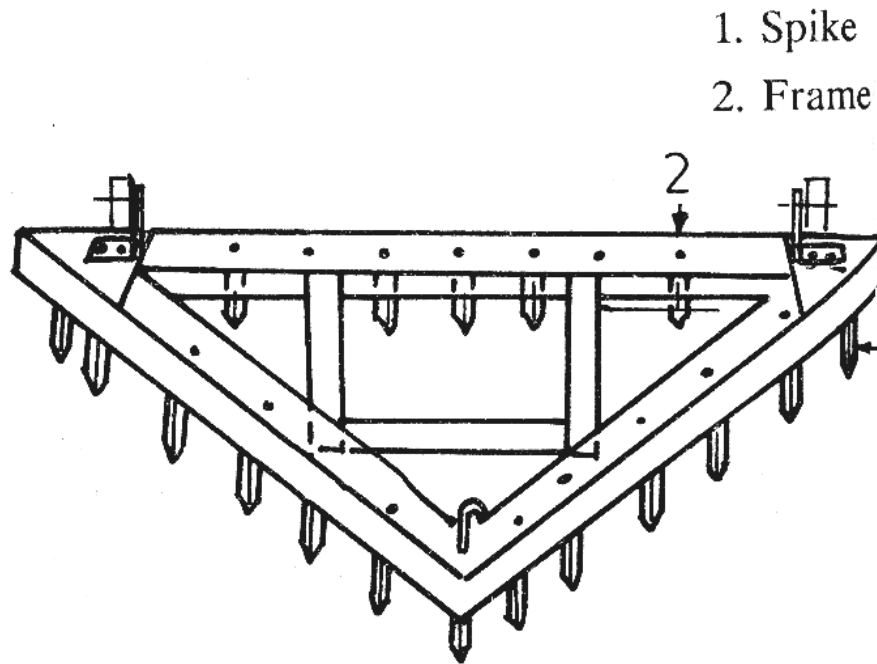


**-Blade Harrow**



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# DRAG HARROW



Triangular Harrow

**It is spike tooth harrow with a triangular frame.**

**The spikes or the pegs are rigidly fixed on the frame.**

**It is used for breaking the clods, stir the soil and uproot the weeds.**

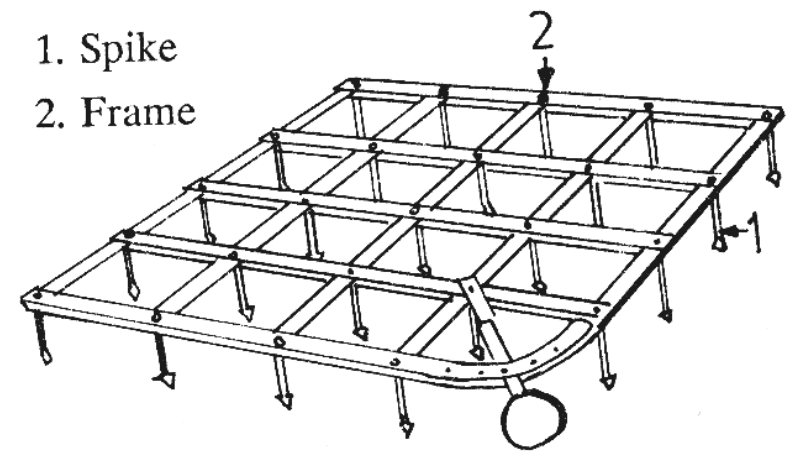


# SPIKE TOOTH HARROW

**Used to smooth the seed bed, break clods, kill small weeds, close air pockets in the soil, loose and aerate soil and break rain crusted soil for fast emergence of seedlings.**

**Available either as animal drawn or tractor drawn type.**

**The working depth of this kind of harrow is generally 5 cm.**



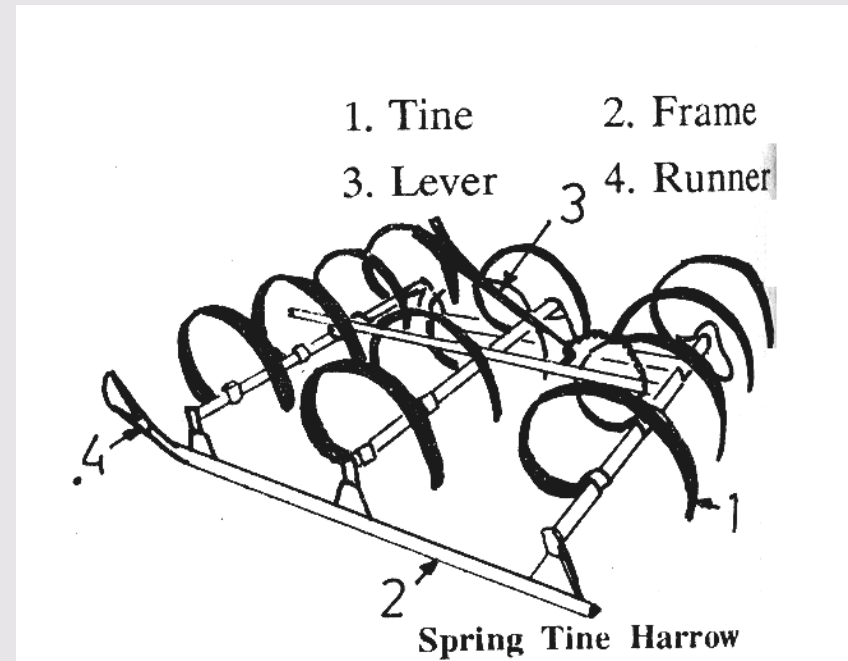
**Spike Tooth Harrow**



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# SPRING TYNE HARROW

Used primarily to  
loose the soil crust,  
**Dig & lift the soil**  
break clods,  
pull roots of weeds,  
close air pockets in  
the soil,  
level the surface to  
make it ready for  
sowing





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# **DISC HARROW**

## **COMPONENETS**

**DISC**

**GANG**

**GANG BOLT**

**SCRAPER**

**SPOOL**

**GANG ANGLING MECHANISM**

**FRAME**

**BEARING**



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# SINGLE ACTION DISC HARROW

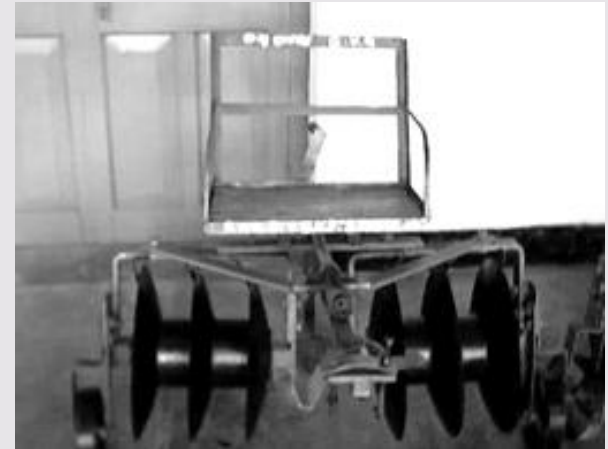
**It has two gangs of disc placed end to end.**

**The discs throw soil in opposite direction.**

**Basically, it is an animal drawn implement.**

**But large size tractor drawn single action disc harrows are available.**

**Apart from harrowing, it is also used in forming ridges, borders for irrigation and in puddling.**





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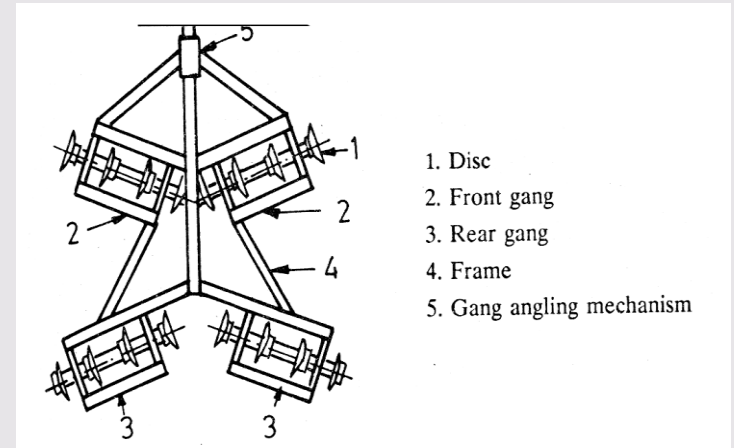
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# DOUBLE ACTION DISC HARROW

**Two opposed front gangs as well as two rear gangs.**

**Front gangs throw soil outward whereas, the rear gangs throw the soil inward**

**Gives a better soil pulverization in one pass which is not possible in case of single action disc harrow.**





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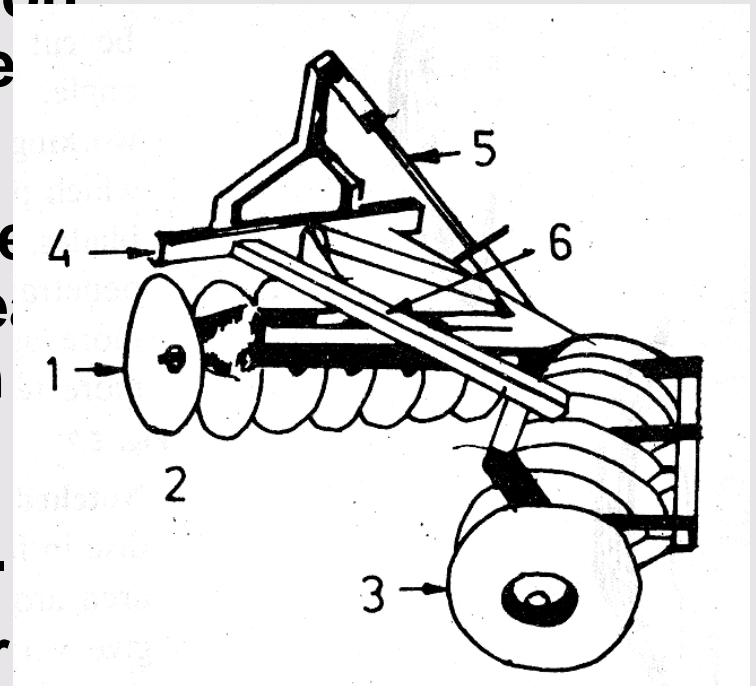
# OFFSET DISC HARROW

**Operated in off-set position in relation to the centre of the prime mover.**

**The front gang throws the soil outward and the rear gang throws the soil in opposite direction.**

**Mostly right hand off-set.**

**Suitable for working near the trees in orchard and under low hanging branches. It gives a soil smoother than other types of harrows**





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# TANDEM DISC HARROW

**Gang angle up to  $24^{\circ}$  in each gang is provided in tandem disc harrow.**

**In tandem disc harrow when front gangs are angled the rear gangs assumed an angle, which is reverse of the front gang thus throwing the soil towards the centre giving a double action.**