

plate of metal, and the *socket*, which binds it to the body of the plough; the *sole*, on which it rests and which slides on the bottom of the furrow; the *mould-board*, which overturns the land and reverses it on the next furrow streak; the *beam*, a piece of wood to which the other parts of the plough are attached; the *props*, which bind the sole to the beam; the *regulator*, or *plough-head*, which serves to regulate the breadth and thickness of the excavation; finally, the *handles*, placed at the back of the instrument, by which the ploughman directs it.

The *harrow* is composed of a frame of wood, furnished with teeth; these should be so arranged as to divide well the whole surface of the soil.

17. Drainage; its utility;—best method to be employed.

Drainage is necessary, because an excess of moisture prevents the action of manure, is injurious to the germination of seeds, favors weeds, endangers crops, renders labor difficult and unwholesome, &c. Besides trenches, one makes, for draining a piece of ground, ditches, which receive the superabundant waters and conduct them into some stream. These ditches can be filled with stones, between which the water flows, then covered with other larger stones and a bed of earth: this prevents loss of land, and hinders less the circulation in the fields. It is again preferable to place tiles made of burned clay at the bottom of these covered ditches. This method is called *tile-drainage*.

18. What constitutes good ploughing; size and depth of the furrow, and size of the beds.

In order that ploughing be good, it is necessary to have the furrows very straight, the furrow-slices properly turned over, of equal thickness and of good breadth; finally, to have it done to a depth proportioned to the nature of the plants that we wish to sow and to that of the soil and subsoil.

If the entire surface of a field be ploughed so as to be perfectly even, and not cut with furrows or lines of drainage, tillage is said to be *flat*. It is in *sets*, when there are left, at certain intervals, water furrows parallel to one another. Finally, when the running furrows are nearer to one another, and the sets more or less swelled, the field is said to be ploughed in *ridges*.