SUPPORTS, POLE-RESTS and BRACKETS

To prevent the pole sank into the ground they are adopted supports or pole-rests of different shapes and different material.

The oldest pole-rest is simply constituted by a stone, basically flat, or a brick, placed in the ground under the head.

Since long time the common pole-rests are made of concrete, round or square. The first one allow a better use of the hole practiced with an drill. The basal surface is crucial: for an average load it is considered sufficient an area of 300-500 cm2, equivalent to a square of 17-22cm per side or a round of 20-25cm of diameter. The pole-rest is also used for the reinforcement of the "rafters" or struts.

These are used to increase the resistance of the head pole, which otherwise would tend to lay in the direction of the row due to the pull of the wires. The main advantage of this solution, compared to the anchor which will be discussed later, is the lack of space in the service road. By contrast, the resistance is not particularly high, because the tension of the wires tends to undermine the head pole hinging on the same strut.

The strut can be of wood, iron or concrete. The section should be calculated taking into consideration the stresses (peak load), to avoid the support to bend or break.

For the stability of the strut it is essential to let it lay on a specific pole-rest and the right joint with the head pole, which can be obtained, depending on the materials used, in an approximate way or with special accessories, called collars or neckties.

With wooden and steel supports it is easy, through connecting joints, holes, nails or bolts (sometimes with just a wire), to connect the pole and the strut. For concrete poles, but also made with other materials, special accessories can be used, called ties or collars. They are made of aluminum or its alloys and galvanized iron. To obtain an appreciable aesthetic result and to have the stakes perfectly aligned, it is essential to accurately fix the pole-rest so that this does not move. Small corrections to the verticality of the head pole can be obtained by adjusting the height of the tie. While for the middle stakes, at the centre of the row, except in cases of strong skeleton, there are normally not particular difficulties to drive the supports in the ground, for the heads the problem is bigger since it is required a greater depth and also because the hole shall be less deep near the service roads.

It is therefore almost always to be excluded the deployment with pressure, so you have to make a hole with a special large diameter drill up to a depth of 0.9 to 1 m. It is also important to thoroughly compacted the soil around the pole, especially in the direction towards which the support is most

stressed: along the direction of the row and valley. Sometimes there is a tendency to leave above all the supports, especially wooden ones, higher than the wires for reusing them when the end is damaged, but the actual needs of mechanization do not meet this rule, therefore the head must have the same height of the middle poles, which means a few centimetres above the last wire.