

Several methods can be used for putting down the "grounds." Sometimes an old auger is welded to a square rod and used to bore the hole. Often a piece of $\frac{3}{4}$ -inch or 1-inch gas-pipe is hammered flat at one end like a chisel and is driven into the ground and pulled out again. Sometimes the earth is such that a post hole has to be dug, and then filled in again after putting down the cable.

SPlicing THE CABLE.

If for any reason the cable has to be spliced, it can be quickly done, as shown in Figure 6, by means of a piece of $\frac{3}{8}$ -inch galvanized pipe, about one foot long, drilled and tapped for four set-screws, one set being drilled "on the quarter" with the other set. The ends are inserted in the pipe until they meet at the middle, and are fastened by the set-screws; or, better still, the ends can be twisted together and fastened in a similar manner in a $\frac{3}{4}$ -inch pipe.

PAINT, ETC.

All parts of the system not galvanized should be covered with two coats of aluminum paint. When painting or re-painting the building it is a good idea to paint the conductor also.

It is well to plug the galvanized tees with some waterproof material, preferably of a metallic nature. Lead or babbitt will do very well, but it is hard to get the melted liquid up on the roof. Putty is not bad, if well put in. There is a putty-like preparation on the market for stopping leaks in caves that does very well. A metallic preparation used in the foundry called "Smooth On" makes a joint nearly as hard as cast iron. It is mixed with water to a plastic condition and applied, making a fine joint.

GENERAL DESCRIPTION OF RODDING A BUILDING

Let us now consider Figure 4 as an example of a barn, and discuss the general methods of putting up rods and cost of material, etc. The barn represented is 40×75 feet. The first thing to consider is the number of points. At a glance at the illustration, it is evident that a point should be put on each of the cupolas and one on each end of the barn; but that leaves a pretty long gap between cupolas. Putting a point there makes five in all, and if the end points are five or six feet from the ends of the roof, no points on the building could be over eighteen feet apart, which would be inside of the twenty-foot limit. Having decided on the number and location of points, the next thing to consider is the grounds. Allowing one ground to two points, two