A standard 6-volt battery will operate the blower for about 90 hours. Continuous service can be maintained with two batteries which are alternately used and charged. In hot, still weather one radiator may not offer sufficient condensing surface to prevent loss of water vapor. In such a case, a second radiator can be mounted in tandem with the first.—R. M. HIXON AND A. L. BAKKE, Iowa State College, Ames, Iowa.

A TOOL FOR THE RAPID SAMPLING OF SOILS

Men interested in soils frequently have occasion to take composite samples of soils. Doing this with a soil auger or spade is at best a rather slow job, especially when a number of samples are taken.

In Fig. 1 are shown tools that have proved very satisfactory for rapidly taking a number of composite soil samples from cultivated land. They consist of a tube for sampling through the A-horizon and a tool for removing the sample. The sampling tool was made from an 18-inch piece of plumber’s brass tubing with a handle shaped from a piece of wood fitted into one end. A slot for facilitating the removal of the soil was cut into one side of the tube with a thin emery wheel and a hack saw blade. The bottom end of the tube can be kept sharpened with a large-size cork borer sharpener or mill file.

Since the brass tubing is made in a number of diameters, a size of tube that will provide the desired quantity of sample from a given number of borings can be chosen. An ordinary screw driver can be used for removing the sample. Shown in Fig. 1 is one on which the handle was extended almost the full length of the shank to make it less tiresome to use.

Using the small tube and screw driver shown in Fig. 1, one operator can readily take as many as 50 composite samples consisting of 20 borings each in a day.—FRANKLIN L. DAVIS, Louisiana Agricultural Experiment Station, University, La.