

SOIL DRIFTING.

For the first few years after the virgin soil is broken, this practice may be followed with no drawbacks to interfere. But as soon as the root fibre is worked out and the humus content is reduced somewhat, the farmer is faced with the soil drifting problem, and unfortunately this assumes aggravated proportions in the "Chinook" wind belt where the land is apt to be bare of snow during the greater part of the winter.

The surface cultivation necessary to destroy the weeds, etc., "fines" the surface soil to such an extent that the strong, dry winds of winter and spring cause it to move about like particles of dry snow. The problem of the farmer, therefore, is to obtain and use implements for this surface cultivation that will pulverize the surface as little as possible, for if the weeds can be destroyed and the surface of the soil left in a granular or slightly lumpy condition rather than in a powdery condition, drifting can be prevented. The "rod cultivator" will accomplish this to a large extent.

THE ROD CULTIVATOR.

The principle on which it works is to have a rod of five-eighths inch, round tool steel, pass through the soil about three inches below the surface. This completely cuts or rather rubs off all weeds but in the operation does not pulverize the surface as would a disc or even a duckfoot cultivator. The object of using a rod in place of a wide, flat piece of steel to act like a knife is that any kind of blade collects particles of roots and trash and does not clean perfectly, while in the case of the rod the pressure is so great on its under side that the trash, etc., is worn off. As an actual fact what this simple implement accomplishes is always a matter of surprise to one who sees it in operation for the first time.

It is not intended to be used in a wet season when there is abundance of moisture in the ground, i.e., when the soil might be termed wet. Under such conditions, a broad-toothed cultivator is more desirable, for pulverizing does not take place to a great extent when the soil is in such a condition. The time that it is particularly desirable to use this rod cultivator on summer-fallow is when the top soil is dry for two or three or possibly four inches down. An ordinary cultivator and particularly a disc used under such conditions would powder the surface to a dangerous extent. The rod cultivator, on the other hand, will not do so, in fact has a tendency to bring any small lumps present to the surface, where they have a beneficial effect so far as preventing drifting is concerned.

CONSTRUCTION.

The rod cultivator is not put on the market by any implement manufacturer, but any handy man on the farm can build it by following the description given here. The frame (A) of the rod cultivator is made of two 2- by 8-inch pieces of lumber, 8 feet long, bolted together and holding the iron arms (B) that carry the five-eighths-inch steel rod (C). This rod is 8 feet long, threaded at both ends and held in place by two nuts at each end. The iron arms (B) can be made from old wagon tires or from pieces of iron $\frac{1}{2}$ by $2\frac{1}{2}$ inches, 19 inches long, with a half turn about the middle. In front of the frame are two skids (D), 4 by 4 inches and 28 inches long, and tapered at the ends. These have 24-inch centres and drop 4 inches below the frame. Running at right angles to the frame, and from the inside of the skids are two pieces of 2- by 6-inch plank, 6 feet long, that run back and act as runners (E). A foot from the end of these runners is a support (F), 2 by 4 inches by 16 inches long, from the