

## ROTARY CULTIVATOR



PLATE 63

The Gravely Rotary Cultivator attaches to the Gravely Rotary Plow Drive, to form a power cultivator that tills and aerates the soil, giving you power cultivation. It is particularly useful in Strawberry cultivation, and does an excellent job in the garden.

### ASSEMBLY

The unit consists of Hood, Drive, Tines.

To assemble Hood, fasten end plates to hood by bolts, washers and nuts provided. Note that a washer is used both under the head of the bolt and under the nut.

Assemble Tines to Shafts as follows. Place Cultivator Unit on a suitable surface, with the Oil Filler Plug and Oil Level Plug side of the Drive Housing facing you, the top of the Drive up (or away) from you. See Plate 64 for the correct way to assemble the RIGHT HAND Tines onto the shaft. Two sets, assembled as shown, will go on the right side, two on the left. Note that the cutting edges, if the shafts were revolved TOWARD you, would cut in the same direction as the shaft is being revolved.

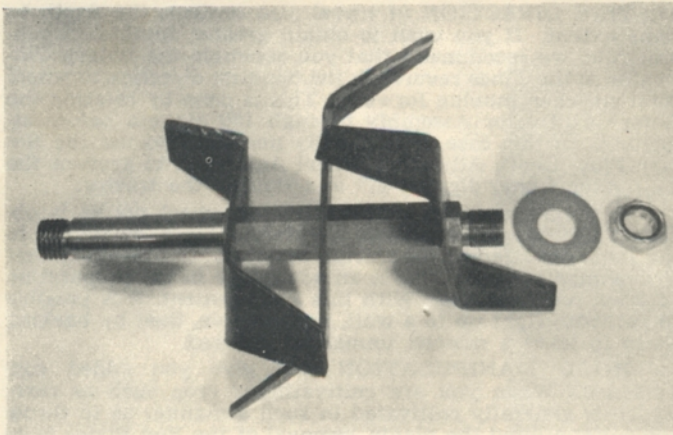


PLATE 64

To assemble the Tines to the Left Hand Shaft, Assemble in the same way, but put them on the shaft from right to left. Correctly assembled, they will appear as in Plate 68.

Fasten by using the narrow spacer (Part No. RC-114), the large washer (Part No. 412-W) and the Elastic Stop Nut (Part No. 225-N).

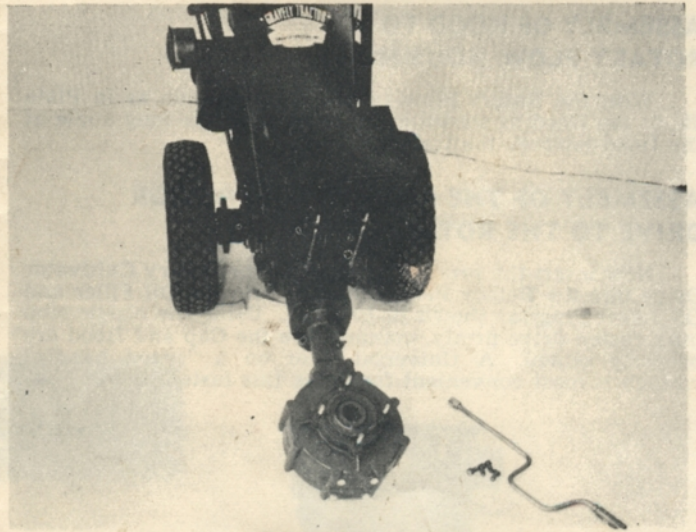


PLATE 65

### PREPARING THE ROTARY PLOW

The first step in preparing the Rotary Plow to receive the Rotary Cultivator is to remove the Adjusting Handle Assembly completely from the Rotary Plow Column.

Remove the Rotor Shaft, Spider and Rotor Spade Cutter assembly.

(The Depth Wheels, Bracket, and Column Assembly may be removed. They serve no useful purpose in the operation of the Rotary Cultivator, unless it is your desire to operate the Unit with the Tines "cutting against" the motion of the tractor. See operating instructions.) To remove this assembly, remove the four bolts from the front of the Rotary Plow Gear Housing, and remove the assembly. Reinsert the bolts to prevent oil leakage. **WARNING: The bolts as used on the Rotary Plow will lock the Rotary Plow Gear if tightened down tightly. We recommend the use of either short bolts, or of Bolts held away from the housing by washers the distance normally taken up by the Column Assembly.**

Turn the Housing through 180°. In this position it will appear as in Plate 65. Note the position of the Alemite Fitting and the Adjusting Handle Boss on the Column.

Remove the four bolts in the Bottom Cap, and insert the studs furnished. (If you do not have a stud driver, two nuts may be locked together on the threads and used to seat the studs firmly, then the nuts removed.)

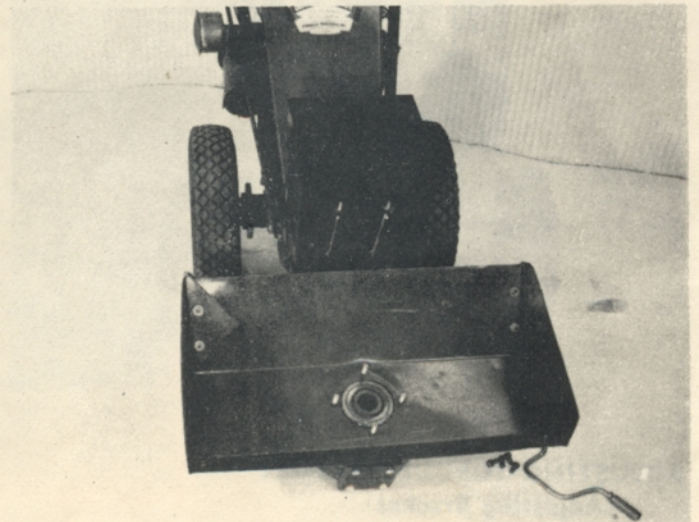


PLATE 66

## ASSEMBLY OF HOOD TO ROTARY PLOW HOUSING

With the Rotary Plow in the same position as in Plate 65, fit the Hood as shown in Plate 66, with the long angle of the Hood towards the tractor.

## ASSEMBLY OF THE ROTARY CULTIVATOR DRIVE TO THE ROTARY PLOW

Now insert the protruding shaft of the Rotary Cultivator Drive into the Rotary Plow Housing, with the Oil Filler and Oil Level Plugs as shown in Plate 67. Using the elastic stop nuts, fasten drive firmly, making sure the Cap and Hood are properly seated. A Universal joint on a "speed handle" wrench is most convenient for doing this fastening job.

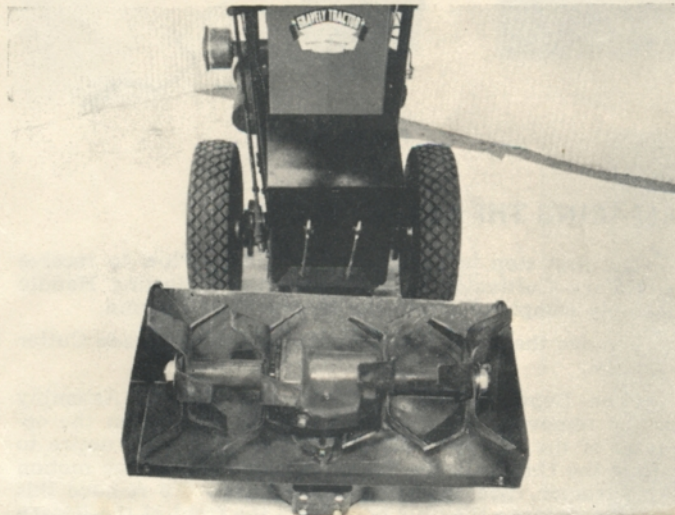


PLATE 67

Now simply rotate the unit until it assumes the position as shown in Plate 68. In this position, the blades are cutting in the same direction as the Tractor wheels are turning, which is the recommended method for most work.

Fill Both Rotary Plow and Rotary Cultivator Drives with oil. See "Lubrication".

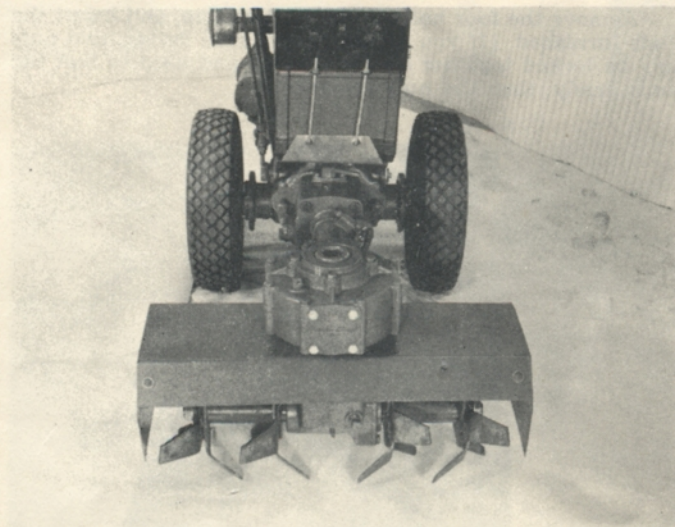


PLATE 68

## ADJUSTING TORQUE BRACKET (Adjusting Bracket)

See Plate 69. The Rotary Cultivator, for best results, should have its long axis parallel with the Tractor Axles.

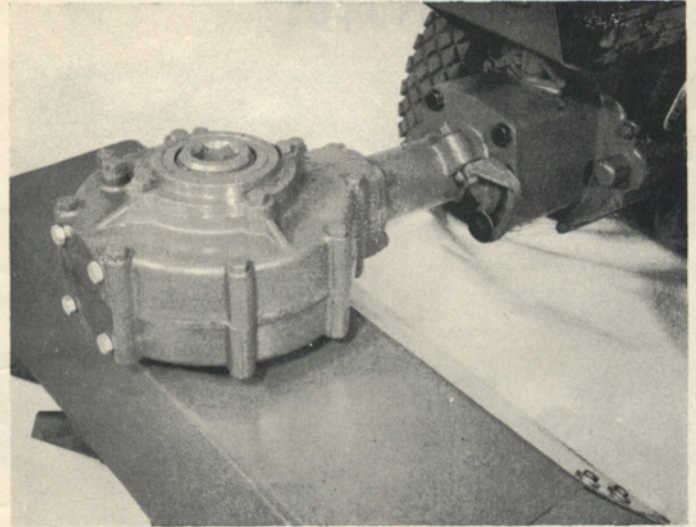


PLATE 69

Adjust until this condition is present, then lock in place by the Adjusting Bracket, attached as shown.

SPACERS with the assembly are to be used when the Rotary Cultivator is removed from the Rotary Plow. The small cylinders are used over the studs, held in place by the stud nuts.

## LUBRICATION

There are two pipe plugs on the front of the Rotary Cultivator Housing. The large plug is an oil filler plug, the small plug is the oil level plug. We recommend Mobilube GX 140 or GX 90. Fill until the oil begins to run out the level hole, reinsert plugs. A strip of paper folded to make a trough will be helpful in filling. Note that the unit should be setting level when measuring oil level.

## OPERATING HINTS

**CULTIVATING DEPTH** is obtained and controlled by light pressure on the Tractor Handles, either upward or downward. With the Tines revolving in the same direction as the tractor wheels, depth is controlled generally by the design of the Cultivator, and will cultivate to about a three inch depth.

To get slightly deeper cultivation, upward pressure on the Tractor Handles is necessary, conversely, to get less depth, slight downward pressure on the Tractor Handles.

**TINE DIRECTION** of travel also controls the depth to some extent. If you wish to obtain greater depth as a general rule, we recommend that you assemble the Rotary Cultivator so the Tines revolve in the opposite direction to wheel rotation when moving forward. This is done by rotating the Rotary Cultivator Assembly through 180 degrees before attaching. In this case, it is usually necessary to use the Rotary Plow Depth Adjusting Wheel Assembly, to prevent the Cultivator from "digging in" and stalling the tractor.

A smooth seedbed without tractor wheel marks is obtained by the use of reverse (With the Tines Revolving in the same direction as the tractor wheels when the equipment is moving forward). This is an advantage in the preparation of lawn seedbeds, etc. With this arrangement, it is possible to cultivate right up to a wall, for example, then by backing away to leave a smooth, unmarked seedbed.

**HOOD MANIPULATION** will give you added convenience. When you are cultivating a crop such as corn, which is generally cultivated in such a manner as to throw some dirt around the plants, removal of the End Plates from the Rotary Cultivator Hood will cultivate the center, and throw a very satisfactory ridge of dirt around the plant roots.

In all other cases, such as the cultivation of bushy crops, the End Plates should be in place to prevent tearing or damage to the plants.

**NOTE:** The Rotary Cultivator is designed to be a Cultivator. It is **not** recommended as a tool to prepare new ground for planting. New ground should be prepared with the Gravely Rotary Plow.