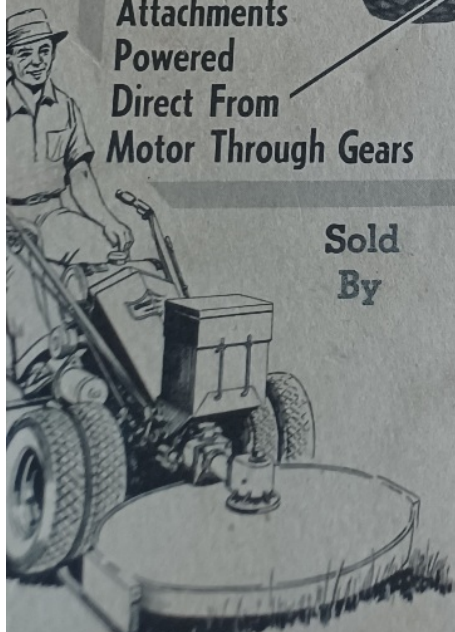
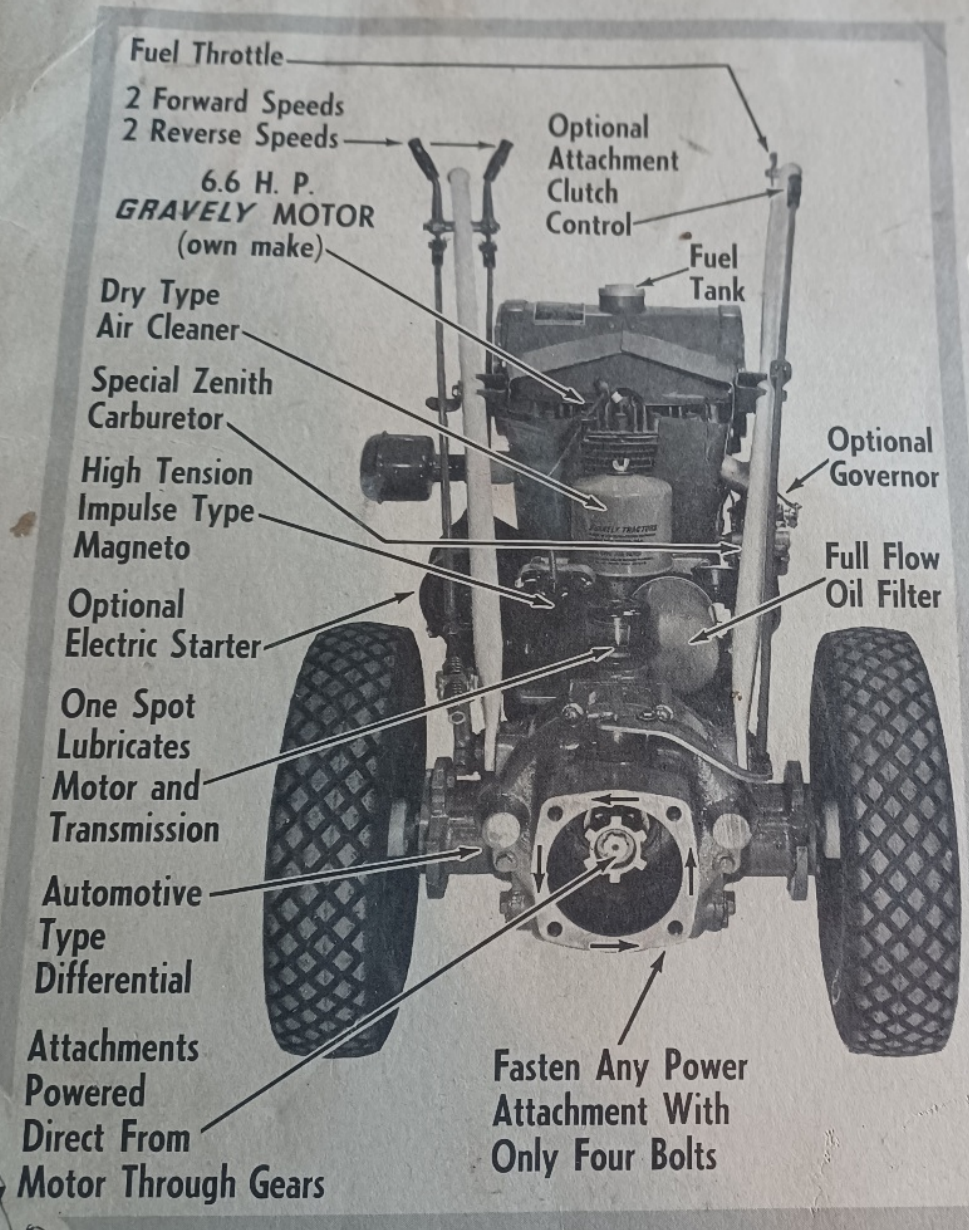


# GRAVELLY

## USER MANUAL



Sold  
By

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### THE GRAVELLY TRACTOR

#### LUBRICATION

ENGINE - CHASSIS - CAPACITY  
USE ONLY HIGH GRADE LUBRICANT

ABOVE 32°F. MOBIL OIL A  
BELOW 32°F. MOBIL OIL ARCTIC  
WITH MACHINE LEVEL - FILL TO OIL  
LOCATED ON SIDE OF CHASSIS

FUEL TANK CAPACITY - 2 U.S. GALS.  
FUEL - USE GOOD GASOLINE SUITABLE FOR  
MOBIL GAS (REGULAR GRADE)

ATTACHMENTS - USE GEAR OIL  
SUMMER - MOBILUBE GX 14  
WINTER - MOBILUBE GX 90

#### READ INSTRUCTION MANUAL

MODEL NUMBER TRACTOR SERIAL NUMBER

L

MANUFACTURING NUMBER

E-

MANUFACTURED BY

**GRAVELLY TRACTOR**

DIVISION OF STUDEBAKER PACKARD  
DUNBAR, WEST VIRGINIA



## Combination:

# ROTARY MOWER - LEAF MULCHER CHAIN SAW - CIRCULAR SAW

With this combination you can perform four different kinds of work. 1. cut timber, 2. clear land, 3. mow lawns, weeds and brush, and 4. mulch leaves—all with the same power drive. To change from job to job, simply switch the tool you want to use!

All of these tools are used on the same drive!

### ATTACHING DRIVE

The drive is attached to the front of the Tractor by four bolts, like all other power attachments.

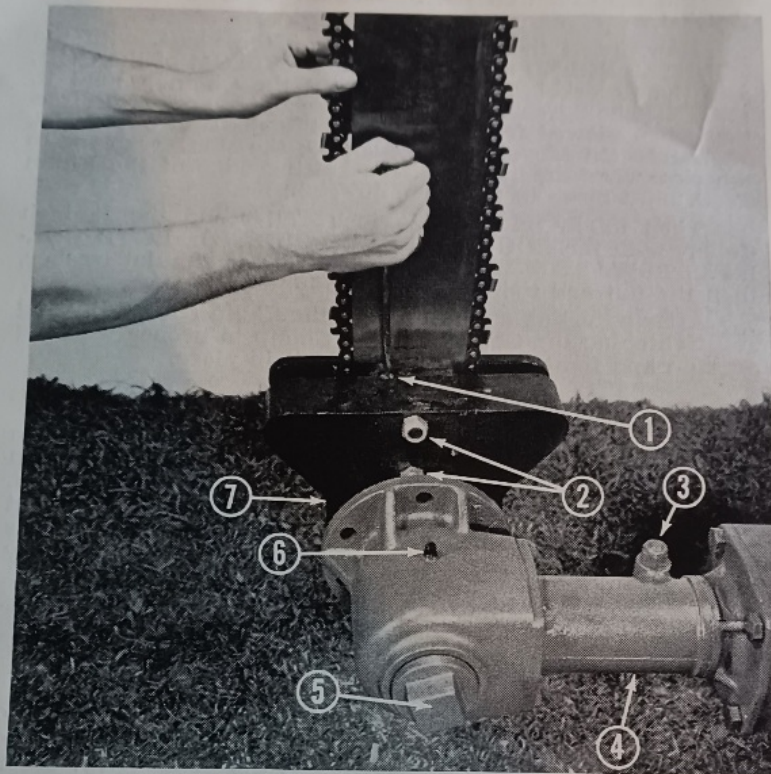


PLATE 20

(1) Chain Adjusting Screw, (2) Guide Bar Clamp Bolts, (3) Angle Adjustment Bolt, (4) Swivel Alemite Fitting, (5) Oil Filler Hole Plug, (6) Oil Level Hole Plug, (7) Bracket Clamp Nut.

### LUBRICATION

On the Swivel Casting is an Alemite fitting. This should be given an occasional shot of Mobilgrease MP as needed.

On the Drive is an Oil Filler Plug (large) and an Oil Level Plug (small). (See Plate 20.)

Remove both Plugs. Fill with Mobilube GX-140 until oil begins to run out the Oil Level Hole.

Be careful not to use too much oil . . . when it is level with the Oil Level Hole, stop.

Replace both plugs before operating the Attachment.

### ADJUSTING SWIVEL ACTION

On the bottom of the Swivel Casting (Part No. A-149), is a Boss, and you will notice that the casting is split at that point, with a large bolt and nut through the Boss.

When using the Rotary Knife Mower, the Swivel should be loosened until the Mower will follow the ground contour with its own weight. When using the Circular Saw or the Chain Saw, usually you will be using the same adjustment as a clamp, to hold the Saws in the position desired. To

leaves, it may be necessary to  
the leaves.

#### CAUTION

Keep hands and feet away from the attachment while in gear and for an interval after being shut off. Be sure knife has stopped revolving before putting hands or feet under the hood!

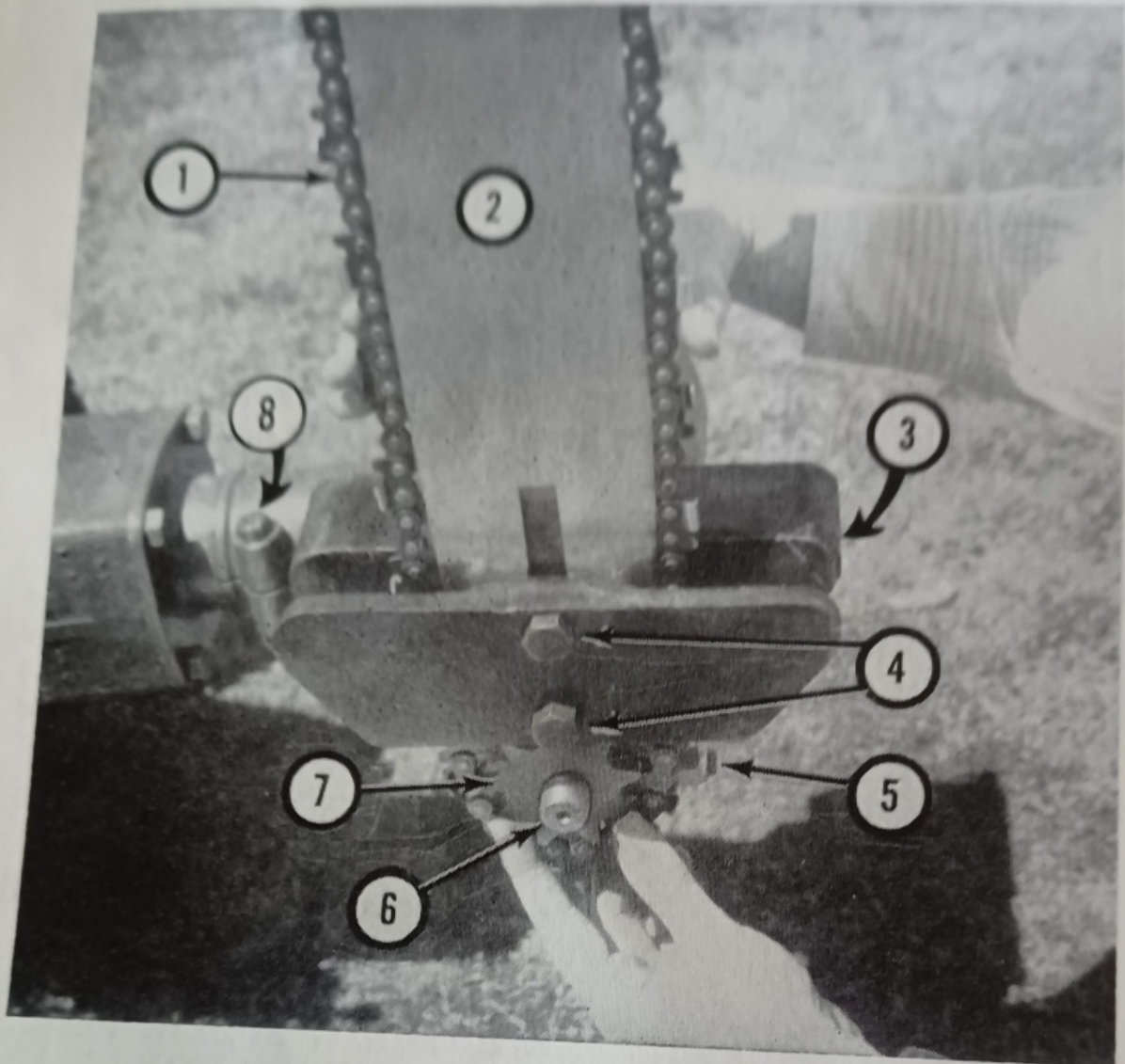


PLATE 22

(1) Chain, (2) Chain Blade, (3) Bracket, (4) Guide Bar Clamp Bolts, (5) Bracket Clamp Screw, (6) Attachment Drive Shaft, (7) Sprocket, (8) Angle Adjustment Bolt.

## CHAIN SAW

### ATTACHING

To attach Chain Saw Assembly to the drive, remove the large nut on the bottom of the Attachment Drive Shaft, and remove the three Collars.

Loosen the Bracket Clamp Bolt on the split end of the Bracket until it will slip onto the Housing from which the Attachment Drive Shaft projects. (It is sometimes necessary to wedge the split ends apart slightly.)



On Chain Saw Drives, Models 52 through 58, the Diameter of the housing is  $2\frac{3}{4}$ ". These models take the Part Number CS-101 Chain Saw Bracket. On Models 58-A and 185, the Chain Saw Bracket part number is CS-101-1, and the diameter of the housing is  $3\frac{1}{4}$ ". The bigger diameter chain saw bracket (CS-101-1) can be converted for use with the Models 52 through 58 of Rotary Mower Drive by the purchase of a Converting Collar, part number CS-331.

The lower edge of the Bracket should be lined up even with the lower edge of the **Housing**. (Not the fixed collar!) Then clamp the Bracket in place by tightening the Bracket Clamp Screw. (See Plate 22.)

Rotate the Bracket until the Guide Bar is pointing straight up. Tighten the Bracket Clamp Bolt until the Bracket stays in place.

Loosen the Guide Bar Adjusting Screw and Clamp bolts that hold the two sides of the Bracket together. The latter should be loosened only enough to allow the Guide Bar to slip back and forth easily.

Put the Chain on the Guide Bar, bring it through the Bracket.

Now, insert the  $\frac{1}{2}$  inch collar on the Shaft, with the COUNTER-BORED SIDE toward the BOTTOM of the shaft. Slip the Sprocket on the Shaft, put the Chain around it. (NOTE: The Sprocket revolves in a counter-clockwise direction when viewed from the end of the shaft on Models 58, 58-A, 185. On Models 52 through 57, the shaft revolves in the clockwise direction . . . the cutting edge of the Chain Teeth must move in the same direction.)

Then follow with the  $\frac{1}{4}$  inch Collar and the  $\frac{7}{8}$  inch Collar, with the COUNTER-BORED SIDES OF BOTH COLLARS TOWARD THE SPROCKET. Put on the flat washer, then the nut and tighten down firmly.

After adjusting and tensioning the Chain (See Adjusting and tightening the Chain), Rotate Clamp to proper working position and tighten the bolt to hold it in place.

#### ADJUSTING AND TIGHTENING THE CHAIN

After you have the Chain in place, tighten up the Chain by means of the Chain Adjusting Screw. The proper tension of the Chain is very important. When properly tensioned, the Chain will be slightly loose on the Guide Bar, but not loose enough for the Driving Links to come out of the slots when the Chain is grasped firmly and pulled strongly away from the Guide Bar.

Care must be taken not to get the tension too tight, or you will "burn" the Guide Bar. (See Plate 20.)

#### ANGLE ADJUSTMENTS

To change the position of the Chain Saw in relation to the Housing on which the Bracket is mounted, loosen the Bracket Clamp Nut at the split part of the BRACKET. Then turn the Bracket and Chain Blade to the position desired, tighten the Clamp Nut to hold it in position.

To rotate the Drive Assembly, loosen the nut on the Boss on the Swivel Casting. This will loosen the Swivel. Rotate the Saw Assembly to the position desired, then tighten the nut tightly to hold the Saw in the desired position.

### CHAIN SAW OPERATING INSTRUCTIONS



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### CHAIN SAW OPERATING INSTRUCTIONS

#### HOW TO SAW

Always swing the Saw SIDEWAYS into the tree if you are felling or notching.

**IMPORTANT:** Never feed the Saw into the wood by any method except **light hand pressure** at the handles. DO NOT lean against the handles, or brace your body in any way to feed the Saw into the work fast.

It is so easy to feed the Gravely Chain Saw that the tendency is to force the Saw into the wood. If you do force the Saw, it will cause excessive wear of the Chain and Guide Bar, resulting in unsatisfactory operation and excessive maintenance cost. Therefore, **ease** the Saw into the tree slowly, letting it "feed itself" without forcing. A **properly sharpened and gauged Saw will feed itself into the work with almost no effort on your part.**

#### DEPTH GAUGE SETTING

One of the two "secrets" of successful Chain Saw operation is the proper setting of the "Depth Gauges." The Depth Gauges are projections that control the depth of bite of the



**Saw Chain.** These are NOT factory set, and must be filed down to correct depth before your Chain Saw will cut satisfactorily.

A "Gaugit" is furnished with each Chain Saw. Directions for its use are also furnished, and it is very important that these directions be studied and the simple and easy filing down of the Depth Gauges be done before you attempt operation of the Chain Saw.

#### SHARPENING THE SAW

A Chain Saw will cut well only if it is sharp. Your Gravely Dealer will furnish you with a sharpening set that makes correct sharpening of your Chain Saw fast and easy. The set is FREE, and is made so that filing of the correct angle of the Tooth is carried out automatically. A sharp Saw Chain is the second of the two "Secrets" of successful Chain Saw operation.

#### CAUTIONS

The Chain Saw is a specialized tool, and must have specialized care for best results. Special Instructions for proper maintenance and sharpening of the Chain Saw are packed with the equipment. **BE SURE TO READ AND FOLLOW THESE ILLUSTRATED DIRECTIONS.**

It is possible to cut timber flush with the ground when using the Gravely Chain Saw, and in many cases this is desirable. However, digging the Saw into the dirt means that the soil, mixed with the lubricating oil, forms an abrasive that soon wears the Saw Chain and the Guide Bar. **You can ruin a new Saw Chain and Guide Bar in a short time unless proper precautions are taken. This is true of ANY Chain Saw.**

We recommend that if you intend to saw much timber off even with the ground that you purchase the Circular Saw, which is inexpensive, and make a second cut at your leisure to get rid of the low stumps you may leave. The Circular Saw is used on the same drive as the Chain Saw.

Lubrication of the Saw Chain is very important. Lack of lubrication will "burn" the Guide Bar. (See Chain Saw Oiling System.)

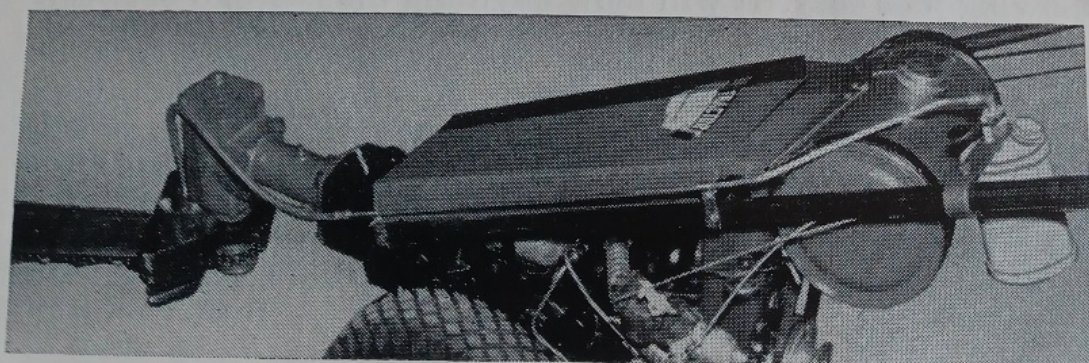


PLATE 23

### CHAIN SAW OILING SYSTEM

The Chain Saw has a separate assembly which furnishes oil to the Chain by the operation of a thumb-plunger.

#### ATTACHING

First, install the Bracket on the Tractor Handle. Put in the Elbow Fitting, and attach the tubing as shown.

To install clips on Handle Bolts, simply loosen the bolts,



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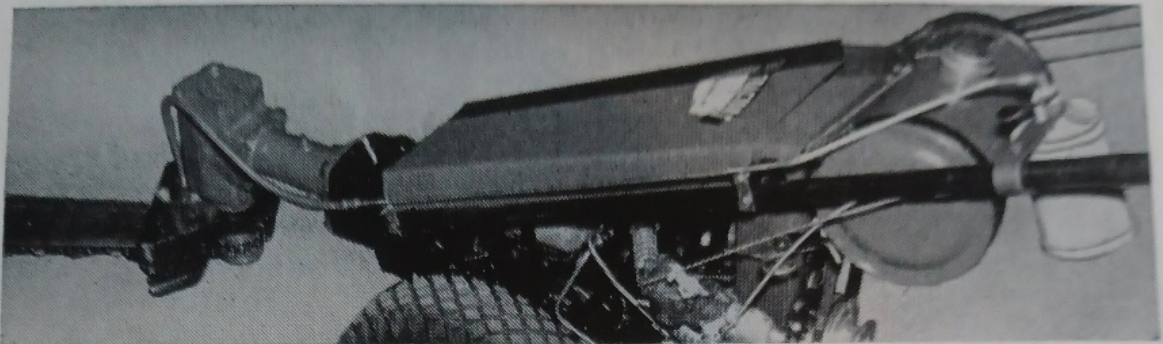


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### ATTACHING

First, install the Bracket on the Tractor Handle. Put in the Elbow Fitting, and attach the tubing as shown.

To install clips on Handle Bolts, simply loosen the bolts, insert the slotted end of the clips, and tighten the bolts.

Screw the male thread of the Flexible Tube into the Bracket of the Chain Saw. Then attach the other end of the Flexible Tube to the Oil Pipe with the straight Connector.

### OPERATION

Depress the thumb lever on the Can. This supplies oil to the Chain. Use ordinary motor oil—new or used—as lubricant. The Chain should receive a liberal amount of oil during operation.

To disconnect, take the Flexible Tube loose from the Oil Pipe at the straight Connector. The Oil Tank and Oil Pipe may be left on the Tractor, or taken off, as you desire.

## THE CIRCULAR SAW

The Circular Saw is useful for clearing land, and cutting down small trees. It has the big advantage of making short work of small scrub growth, saplings, sprouts, etc., cutting them off even with the ground. This allows you to mow over the area with your Gravely Sickle or Rotary Mower.

We do not recommend the Circular Saw for felling large trees. The Chain Saw will do this job faster and better.



#### ATTACHING

To attach the 18" Circular Saw Blade, put on the Collars and Blade IN THIS ORDER:  $\frac{7}{8}$  inch Collar,  $\frac{1}{2}$  inch Collar, the 18 inch Circular Saw Blade, then the  $\frac{1}{4}$  inch Collar. Put on the large nut and tighten down firmly.

Be sure that the Collars next to the Circular Saw Blade have the COUNTER-BORED sides FACING the Saw Blade.

The cutting edge of the Circular Saw tooth must face the direction of shaft rotation. See "Rotary Knife Mower" instructions to determine shaft rotation.

#### SAW GUARD

An optional Circular Saw Guard is available from your Dealer. To attach, fit the Split Ring to the Housing, swing the Guard to the position desired, and tighten down the two bolts and nuts. This will clamp the Guard in position. Give Model Number of Drive, to assure proper size.

#### USING THE CIRCULAR SAW

The Circular Saw is fed into the work from the side the same way as the Chain Saw, by pivoting the Tractor. Just exert pressure on the handle opposite the work, and keep a firm pressure against the work. Do not force the Saw into the tree . . . let it "eat" its way in gradually.

#### CLEARING LAND

The Circular Saw is most effective when used for land clearing operations. The method is to put the Saw in the horizontal position, and drive the tractor forward slowly. If you are working in very dense undergrowth, it is helpful to swing the Blade back and forth as you move slowly forward. This will let you cut a wide path. Your judgment will soon dictate when to stop the forward movement and concentrate on a sprout or sapling that is too large to "drive through."

Care should be taken not to run the Saw Blade into the ground, or against rocks. This will, of course, quickly dull the Saw and require sharpening and resetting.

#### SHARPENING THE SAW BLADE

We do not recommend field sharpening. Instead, you are better off to take the Saw Blade to a professional Circular Saw Blade sharpener, or to your Gravelly Dealer. "Setting" the teeth requires special tools, and sharpening the Saw with the correct angle also requires special equipment.

#### STORAGE

If you are going to store your Circular Saw Blade for several days or longer, we recommend that you coat it heavily with Mobilgrease MP.

## LAWN ACCESSORIES