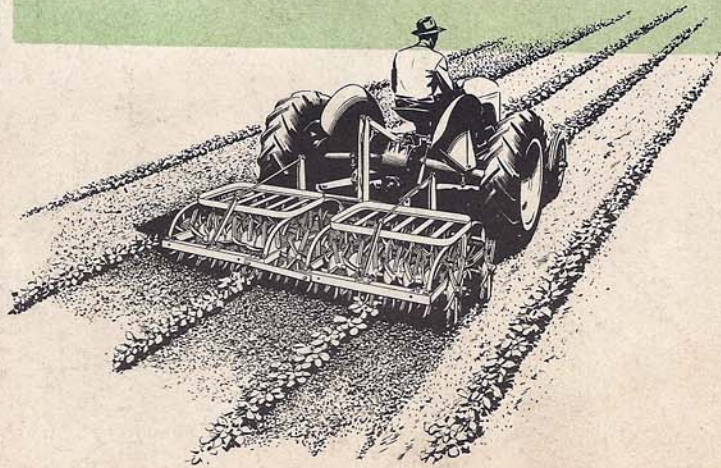




ROTARY HOE
R-KO-20



OPERATING
and ASSEMBLY
INSTRUCTIONS



HARRY FERGUSON, INC. • DETROIT, MICH.

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FOREWORD

The Ferguson R-KO-20 Rotary Hoe is a two section unit attached to and pulled by the links of the tractor. This permits lifting of the hoe and carrying it on the tractor for transporting over public highways, to and from the field, and when crossing grassy waterways, etc. The Ferguson Rotary Hoe is a surface tilling tool. The curved ends of the teeth penetrate the surface of the soil and as they revolve forward, impart a picking action to the soil. This action breaks up soil crusts that may have formed and tears out weeds without damaging the more firmly rooted crops. In the case of beans, peas, and other crops of this nature, the rotary hoe will break soil crusts before the seedlings are through the ground without damaging the tender plants or seedlings. The rotary hoe is almost a necessity for these crops.

The Rotary Hoe is quickly and easily attached or detached to the three-point linkage. The regular Ferguson Finger-Tip Control System raises and lowers the implement for transporting or for putting it into operation.

The implement is of sturdy steel construction. Each unit can move independently of the other, thus giving a flexibility between the gangs permitting uniform penetration on uneven land. The implement has thirty-two (32) hoe wheels of angle steel construction. The hoes are so spaced that the rear gang works the ground left between hoes of the front gang. The hoe wheel axles are mounted in oil-soaked hard maple wood bearings.

This manual contains illustrations and definite information concerning the assembly, adjustment, operation and maintenance of the Ferguson Rotary Hoe. Read, study, and retain this booklet. By following these instructions, you will receive the satisfaction, long life, and performance built into this implement.

Permit the installation of only genuine Ferguson parts, which can be purchased from your Ferguson Dealer. These parts are manufactured with the same care and precision exercised in the production of the original implement. This assures exact dimensions, uniformity, hardness, quality of material, and interchangeability of parts.

OPERATE YOUR ROTARY HOE AT HIGH SPEEDS. IT WILL DO BETTER WORK.

NOTE: For convenience to the reader, each illustration carries the same number as the page on which it appears. Where there are two or more illustrations on each page, each carries a suffix to designate it from the other illustrations on the same page. Where reference is made to illustration 4C for example, it will be found on page 4.

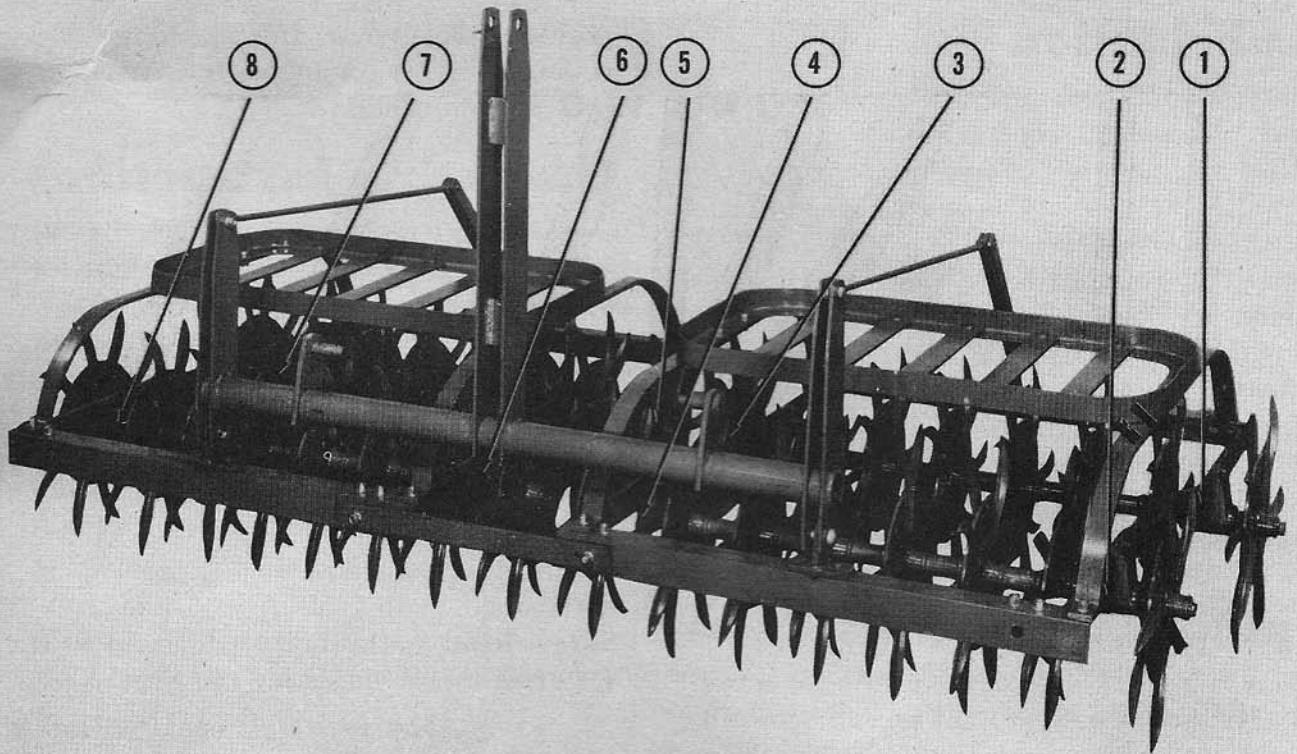


Fig. 1-A

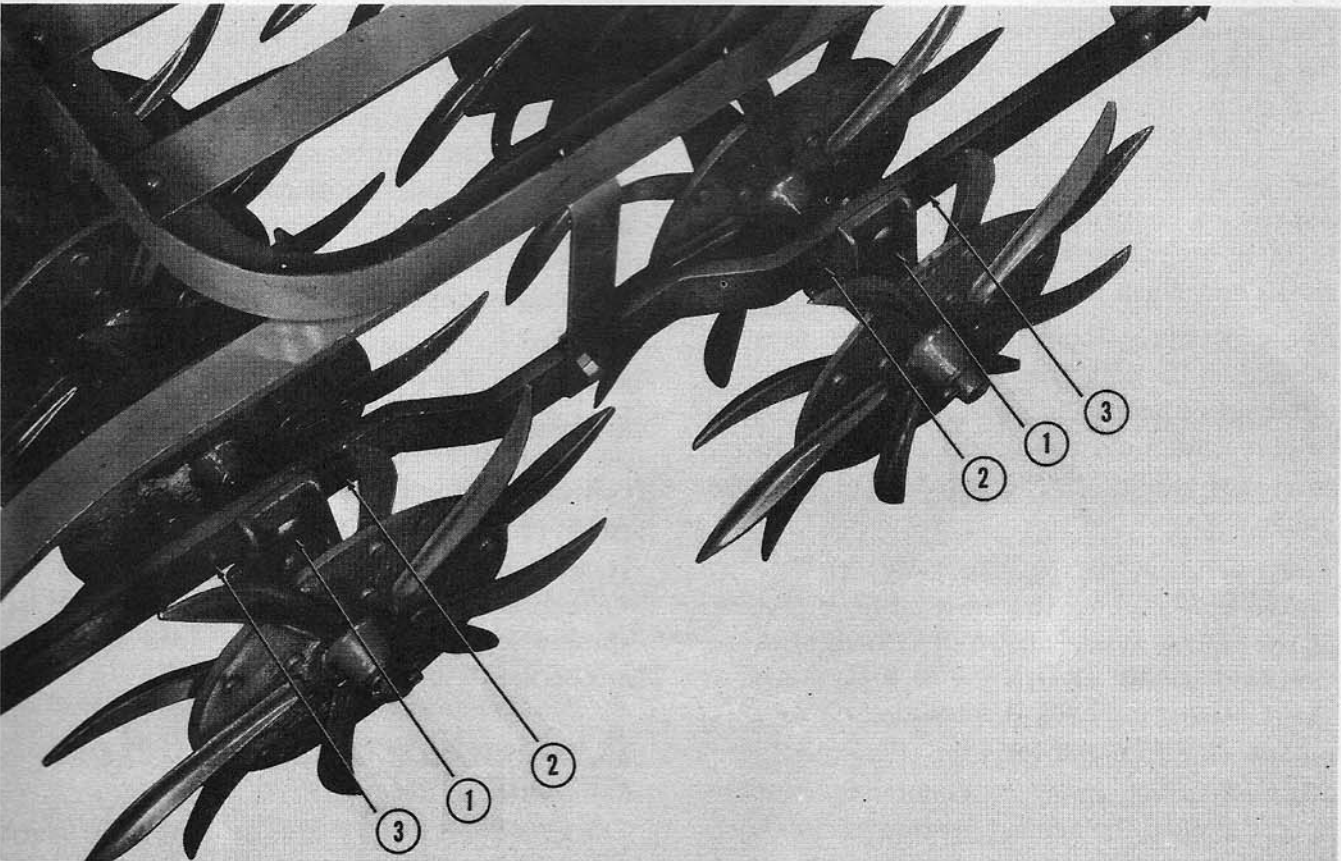


Fig. 1-B

Lubrication

There is one high pressure grease fitting on each of the eight (8) bearing boxes. Fig. 1-A. After assembly of the implement, run a wire through the grease fitting part of each bearing box to make sure it is free of paint. Then lubricate the bearings with the chassis grease found in your tractor grease gun before putting the implement into its initial operation. Thereafter, grease once daily. When using the grease gun, continue forcing grease into the bearings until grease appears at bearing ends. This will force out all grit, dirt and foreign material.

Spider Gang Adjustment

There are three hole adjustments for movement of the hoe gangs to suit various operating conditions. For normal conditions, bearing boxes should be attached to the center hole of the three-hole series, Number 1, Fig. 1-B.

For excessively trashy conditions, bolt the bearing boxes to the inner set of holes, Number 2, Fig. 1-B. By so doing, the front and rear hoe gangs are brought four inches closer together. The upward movement of the front hoe gang teeth tends to pick up trash. The downward movement of the rear hoe gang teeth in operation tends to tear up and clean stalks and trash from the front hoe teeth.

For excessively stony conditions, it may be advisable to bolt the bearing boxes to the outer set of holes, Number 3, Fig. 1-B. This is to give added clearance and is less conducive to stones lodging between the front and rear gangs.

The operation of the hoe gangs can be reversed by attaching the drawbar onto the rear of the frame. When operated in reverse direction you do not secure the picking action of the teeth and it then becomes a soil pulverizing compacting tool and less of a tillage tool. It is more effective, under most conditions, when operated with the curved portion of the tooth, the point where it rests on the ground, pointing rearward. This is the hoeing or tilling

position. This gives the maximum picking action, which is commonly referred to as the rotary hoeing action.

Operating Instructions

The Rotary Hoe is used for surface cultivation. It is an effective weed control tool when used when weeds are small. The implement is operated over the entire ground area irrespective of row location of growing plants. It is a cultivating, weed control, tillage tool for young plants, or for breaking soil crusts and destroying weeds before the young plants are through the ground.

Adjust the front and rear tractor wheels to correspond to the width of rows being cultivated. Refer to the Tractor Instruction Book for procedure in adjusting the wheels.

The Rotary Hoe is easy to operate. Once the implement has been lowered to the ground, all the operator has to do is steer the tractor between the crop rows at a constant and rapid speed. The picking action of the teeth tears out the weeds without damaging the crop plants which are larger and more securely rooted.

The effectiveness of the picking action of the teeth is greatly increased when operated at high speed. Under most conditions, it is desirable to operate in high gear with approximately $\frac{2}{3}$ open throttle. Weights may be added to the weight boxes for additional penetration if so desired.

In the case of young plants such as beans, peas and other crops of this nature, the time consumed in cultivating operations may be cut in half through the use of the Rotary Hoe. It tears out the weeds while cultivating the surface soil around the young plants, thus, eliminating the slower and more laborious methods of cultivation.

Assembly Information

Assemblies as Shipped

The R-KO-20 Rotary Hoe is shipped in seven compact bundles; the shipping weight is 575 pounds.

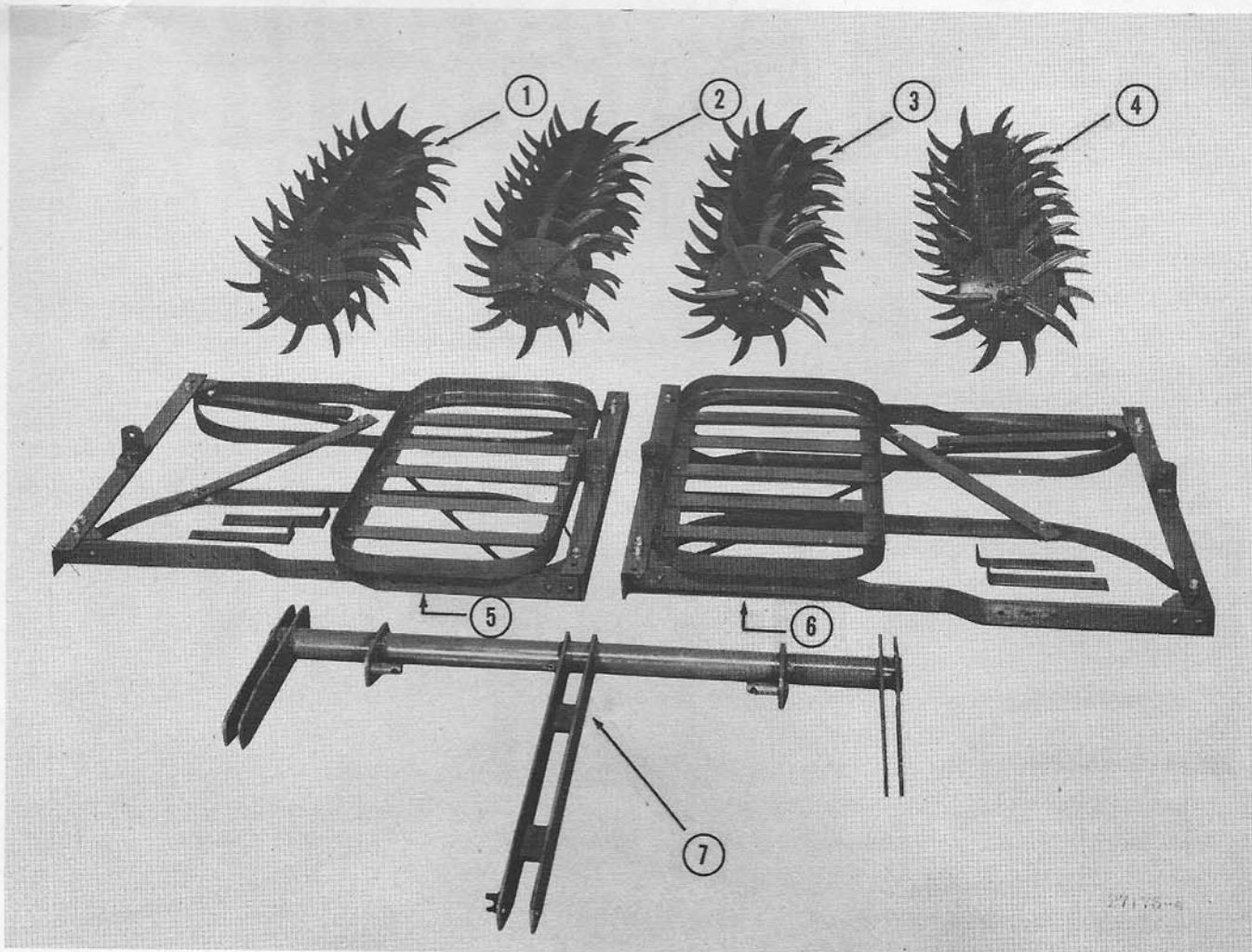


Fig. 3

- | <u>Quantity</u> | <u>Assemblies</u> |
|-----------------|--|
| 4 | Spider Gang Assemblies, Numbers 1 through 4, Fig. 3. |
| 2 | Gang Frame Assemblies, Numbers 5 and 6, Fig. 3, each assembly consisting of:
1 Gang Frame
1 Weight Box
2 Weight Box Supports
2 Weight Box Support Braces
1 Lift Rod Assembly
1 Section Connector with Spacer |
| 1 | Drawbar Assembly, Number 7, Fig. 3. |

washers and nuts in the holes in which they should be used.

Assembly Instructions

After checking shipment for completeness, cut all wires attaching bundles.

1. Place the spider gangs in their approximate operating position. Fig. 4-A. The gangs should be arranged so that the curved portion of the tooth resting on the ground points rearward.

Looking from the drawbar position, the front gangs should be staggered about one-

All frame members are shipped with bolts,

half space to the left of the rear gangs.

- Place gang frames on top of gangs.

Note: There are no right or left assemblies, and assemblies are interchangeable.

- Bolt the four (4) bearing boxes to the side bars of each frame as shown in Fig. 4-B, Number 1. It is recommended that bearing boxes be bolted to the center of the three-hole series for average working conditions.

(See page 2.)

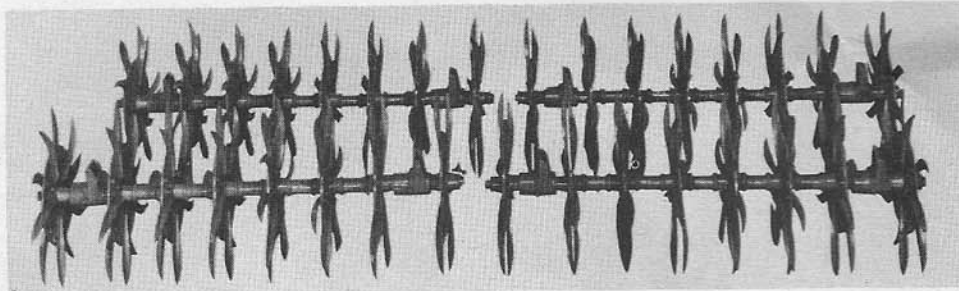


Fig. 4-A

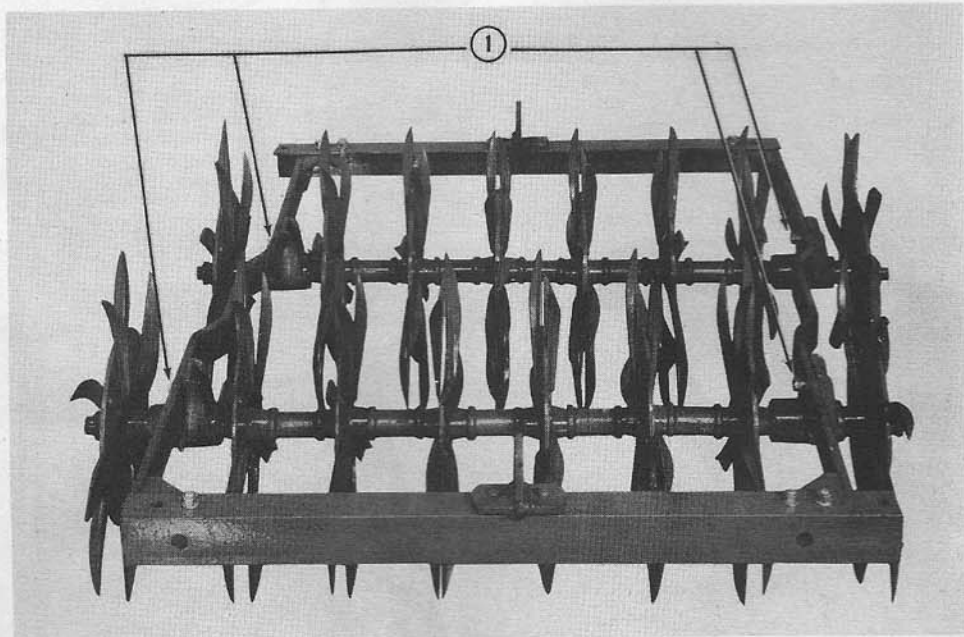


Fig. 4-B

- Bolt the weight box supports to the front and rear of the section at points 1. Fig. 4-C.

- Bolt turned edge of weight box support braces to underside of weight box supports with bolt inserted from top of support, Number 2. Turned edge should point towards center of frame.

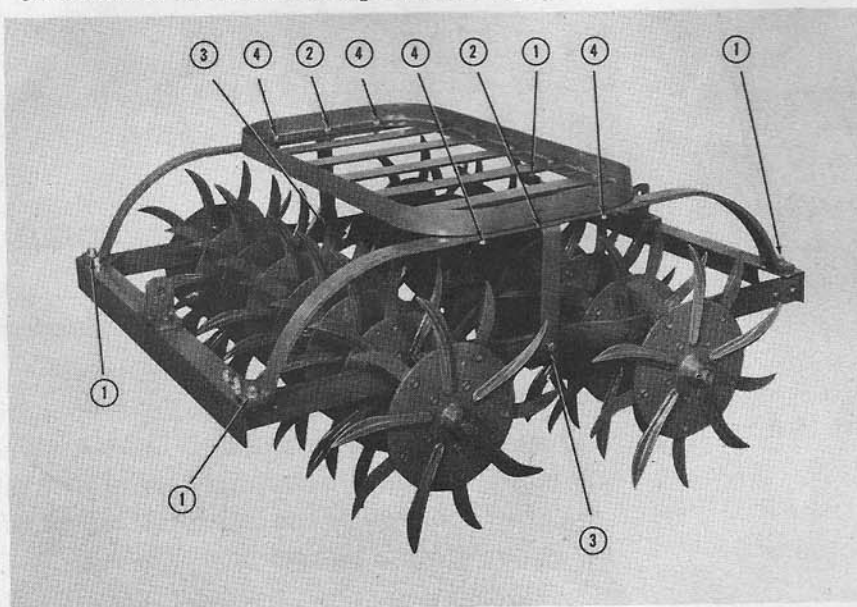


Fig. 4-C

- Bolt other end of brace to outer side of main frame side bars, Number 3.

- Bolt weight boxes to support with bolts inserted from top, Number 4.

8. Tighten all bolts securely.
9. Couple the two gang frames together at front and rear with the channelled section connectors, points 1, Fig. 5. Note: Be sure to use the spacers provided to allow for flexibility between the sections.
10. Attach drawbar to front standards at points 2.
11. Attach lift rod assemblies to rear standards at points 3.
12. Connect lift rod eyes to drawbar connecting areas at points 4.

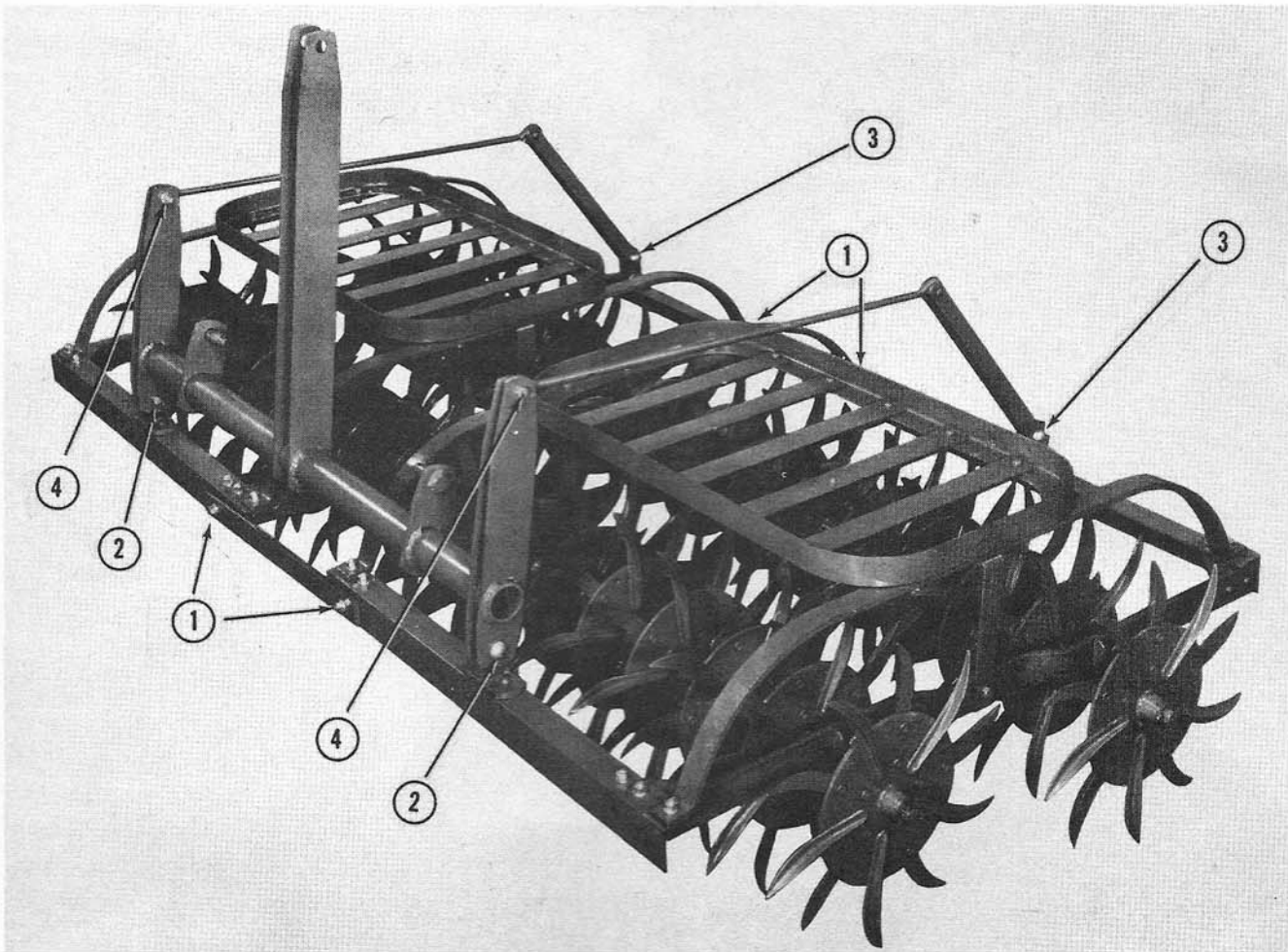
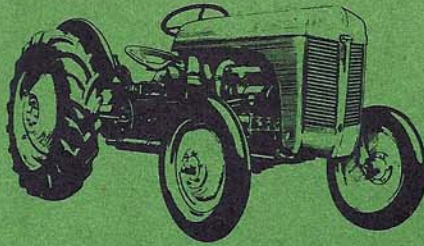


Fig. 5

See Your Dealer for Information

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- | | |
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| Corn Planters | Heavy Duty Mowers |
| Lister Planters | Feed Grinders |
| Tillers | Cordwood Saws |
| Single Disc Harrows | Farm Wagons |
| Tandem Disc Harrows | Corn Picker |
| Spike Tooth Harrow | Rotary Hoe |
| Offset Disc Harrow | Disc Tiller |
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