



FERGUSON
N-KO-21
CULTIVATOR



ASSEMBLY
and OPERATING
INSTRUCTIONS



HARRY FERGUSON, INC. • Detroit 3, Michigan

F E R G U S O N

N - K O - 2 1 C U L T I V A T O R

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The Ferguson N-KO-21 Cultivator is designed to utilize the exclusive Ferguson System. It is easily attached and adjusted for a wide variety of uses that meet the majority of row-crop cultivation requirements in all sections of the country.

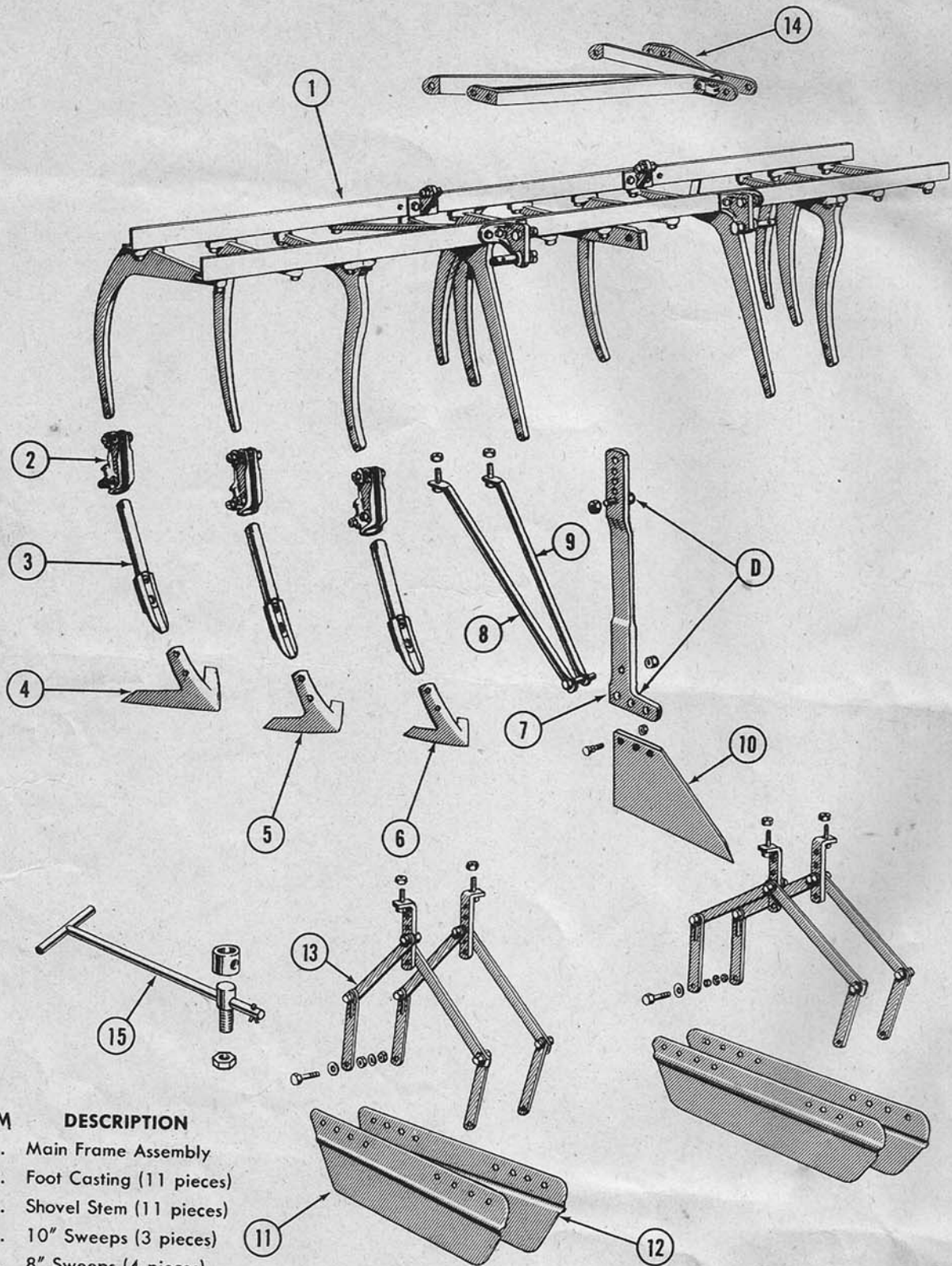
The tines are made of special, forged steel, bolted to a frame of heat treated steel, providing a maximum amount of strength, yet light in weight.

These assembly and operating instructions are furnished so that this implement will be properly assembled and that you will be assured a maximum amount of satisfactory performance from it.

Follow this manual closely and if a difficulty should be encountered, or when repair parts are necessary, contact your local Ford-Ferguson dealer.

www.tractorclub.com

FERGUSON NKO-21 CULTIVATOR



ITEM	DESCRIPTION
1.	Main Frame Assembly
2.	Foot Casting (11 pieces)
3.	Shovel Stem (11 pieces)
4.	10" Sweeps (3 pieces)
5.	8" Sweeps (4 pieces)
6.	6" Sweeps (4 pieces)
7.	Steering Fin Stem
8.	Right Steering Fin Stay
9.	Left Steering Fin Stay
10.	Steering Fin
11.	Right Fender

ITEM	DESCRIPTION
12.	Left Fender
13.	Fender Toggle
14.	Strut Assembly
15.	Steering Pointer

FIG. 1

ASSEMBLY INSTRUCTIONS

1. Remove all bundling wires and contents of the carton. Fig. 1 shows the Cultivator as it is unpacked by the dealer. Check each item and the numbered list to be certain the shipment is complete. The item numbers correspond with the numbers on all illustrations. All bolt threads should be thoroughly cleaned and well lubricated before tightening.

2. Turn main frame assembly (1) upside down, tines in the air. (Export shipments are made with the tines detached from the frame. Attach the tines as shown to suit the row widths required):

3. Attach foot casting (2) to cultivator tines. Leave bolts A and B (2) finger tight. **THIS IS IMPORTANT.** See Fig. 3 for additional detail. Set points of serrated washer and foot casting together as shown in Fig. 3.

4. Install shovel stem (3). Notice the markings and put all shovel stems in same posi-

tion. When tightening bolt A, Fig. 2, place all foot castings in the same position by using serrated foot casting (2) and washer. The special mark is provided to make this adjustment accurately. (See detail, Fig. 3.) Tighten bolts A and B first and then tighten bolt C.

5. Attach 10" sweeps (4).

6. Attach 8" sweeps (5).

7. Attach 6" sweeps (6).

8. Clean faces of steering fin stem (7) at points D and install stem.

9. Install right (8) and left (9) fin stem stay. *Note position of bolts on fin stem.* See bolts K and L, Fig. 10. Stays are attached to rear frame member as shown in Fig. 4.

10. Clean face of steering fin (10) at point D and install.

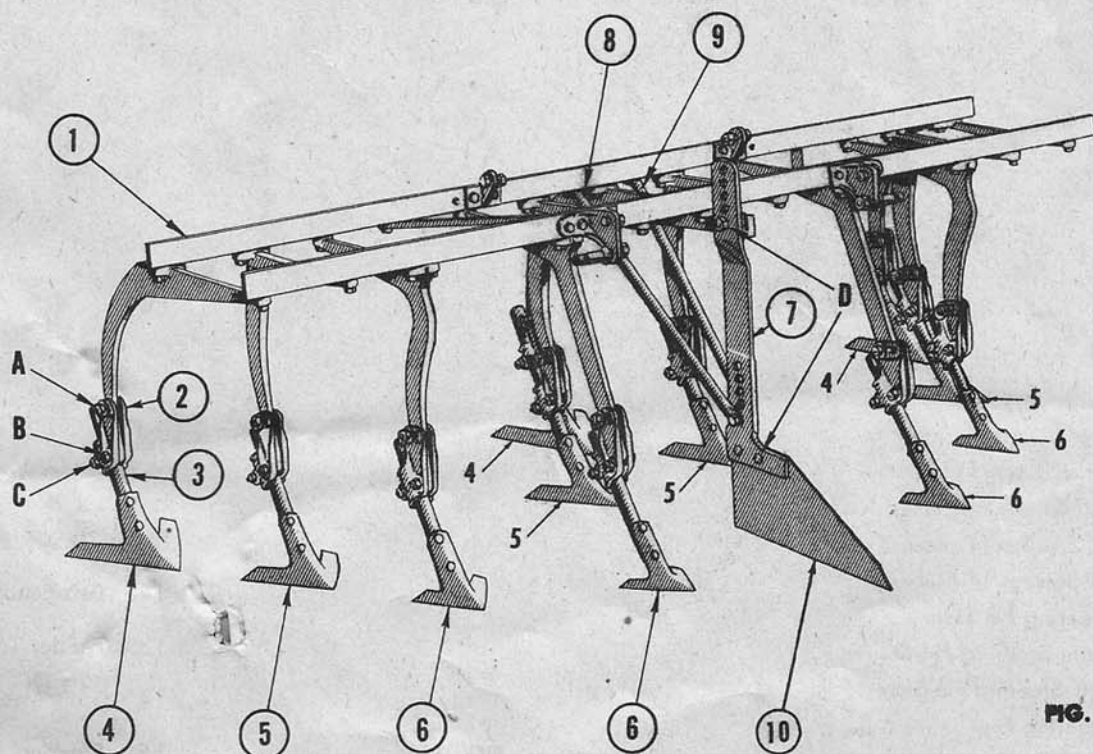


FIG. 2

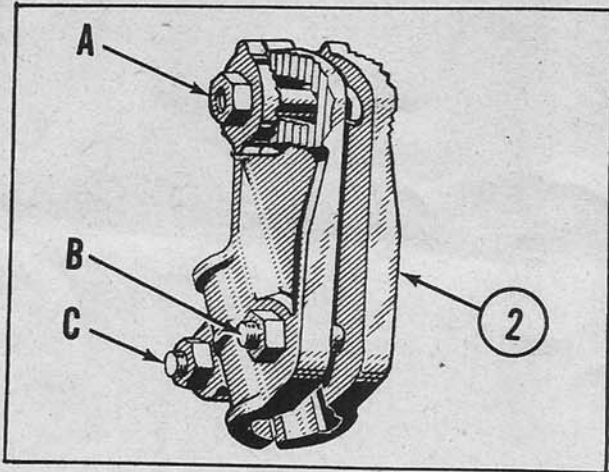


FIG. 3—FOOT-CASTING

ASSEMBLY STEPS—Continued

11. Attach right (11) and left (12) fender to fender toggle assembly 13. See detail, Fig. 6. Be sure to use bushings provided at G.

12. Install right fender and toggle assembly (11) at point E. Note that slotted toggle is to the rear.

13. Install left fender and toggle assembly (12) at point F.

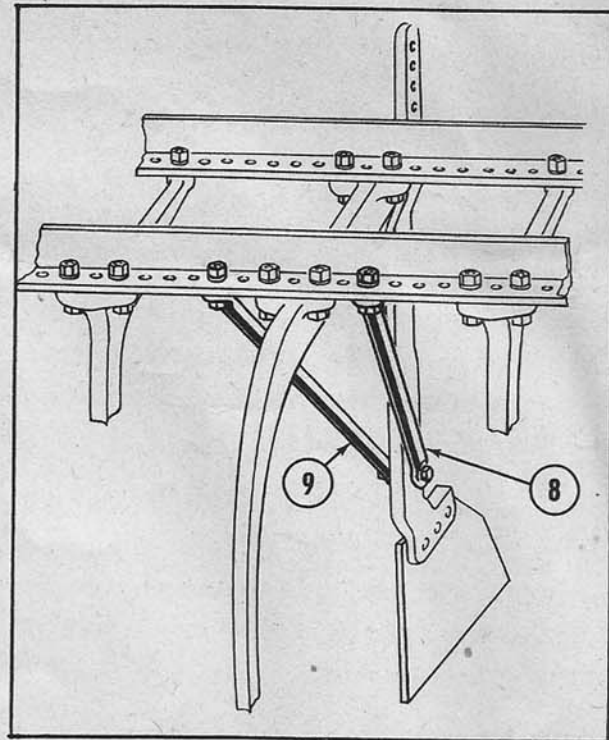


FIG. 4—STEM STAY

14. Attach strut assembly (14). Note that lynch pin clip is on the right side.

15. Install steering pointer (15) on tractor as shown in Fig. 7.

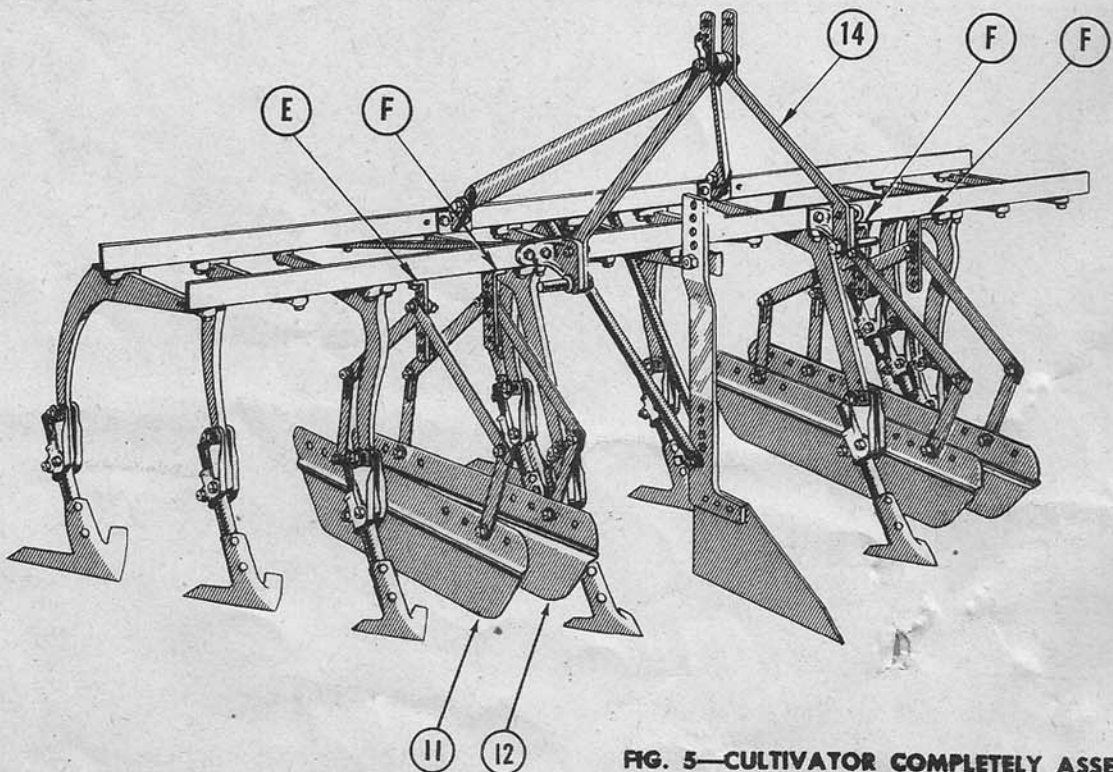


FIG. 5—CULTIVATOR COMPLETELY ASSEMBLED

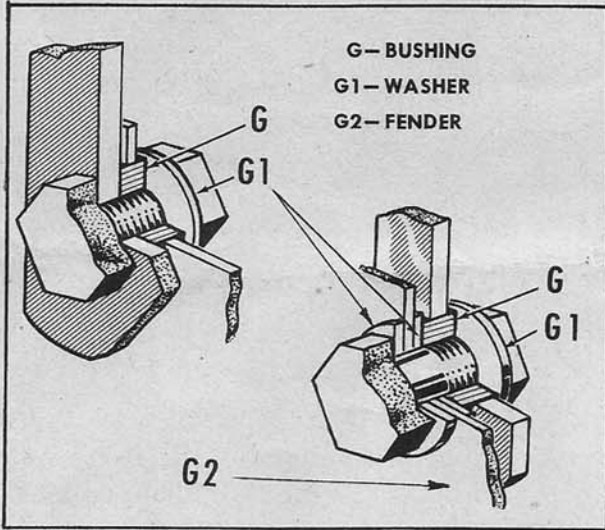


FIG. 6—FENDER ASSEMBLY

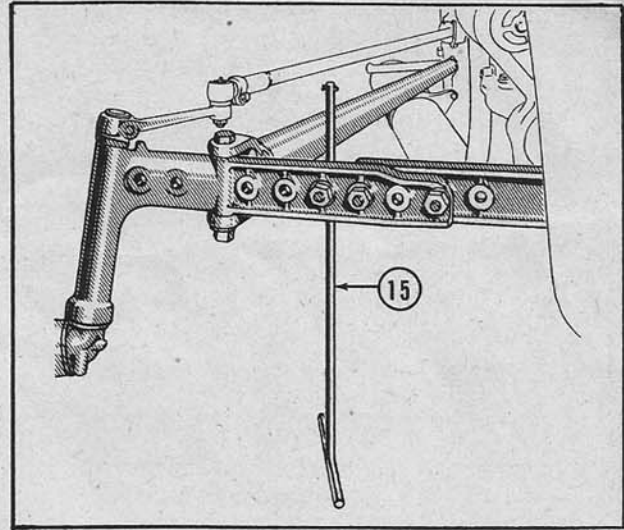


FIG. 7—STEERING POINTER IN CORRECT POSITION

OPERATING and ADJUSTMENT INSTRUCTIONS

SWEEP ADJUSTMENT

The sweeps may be adjusted vertically by loosening bolts A, B, & C, Fig. 8, and moving the shovel stem up or down. The markings on the shovel stem are provided to aid in making this adjustment and all shovel stems should be on corresponding markings.

The sweeps may be adjusted to throw dirt toward, or away from the row by loosening bolt C and turning shovel stem and sweep to the desired position. The sweeps must be adjusted to the same position on each side of the fin or the cultivator will have a tendency to pull sideways. The downward pitch of the sweeps can be adjusted by loosening bolts A and B and moving foot

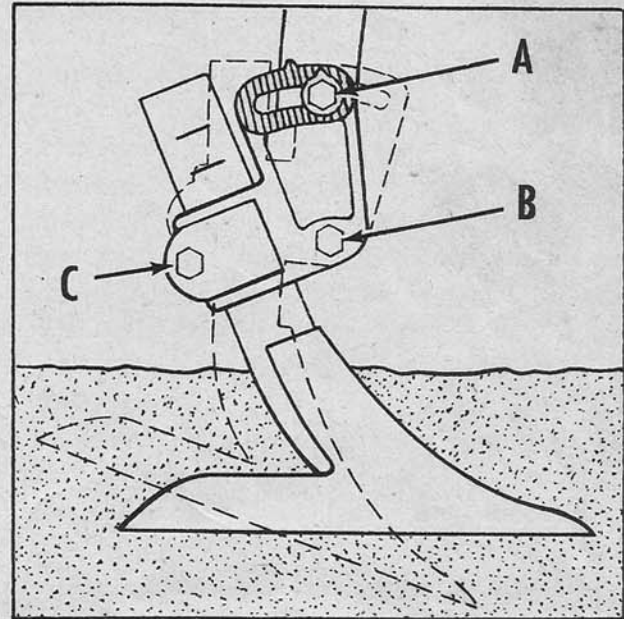


FIG. 8—SWEEP ADJUSTMENT

casting. The serrated washer must be used and keeps the foot casting in its set position. The sweeps work best when they are set parallel to the ground, or flat, and should be in this position whenever possible.

Lateral adjustment of the sweeps to work close to the rows, or for different width of rows, is possible by moving the tines to the proper holes, spaced at one-inch intervals, in the main frame assembly.

Corresponding sweeps on both sides of the fin must be set at the same stem marking.

Sweeps are furnished as standard equipment but other type shovels may be obtained from a Ford-Ferguson dealer.

the top bolt be fitted in the center hole, as shown, the bottom bolt should also be in the center hole, as shown.

WARNING

When bolting the fin to the stem take great care to see that both faces are clean. Any foreign matter between the faces would cause the fin to steer the implement to one side. These remarks also apply to the faces at I and J, where the fin stem is bolted to the cultivator.

All fin bolts should be kept *extremely tight* to make the fin steer the implement correctly.

It is of the *utmost importance* that the fin should be free to pivot around the bolt L. Make sure that the spacer through which this bolt passes is always fitted and the bolt kept *extremely tight*.

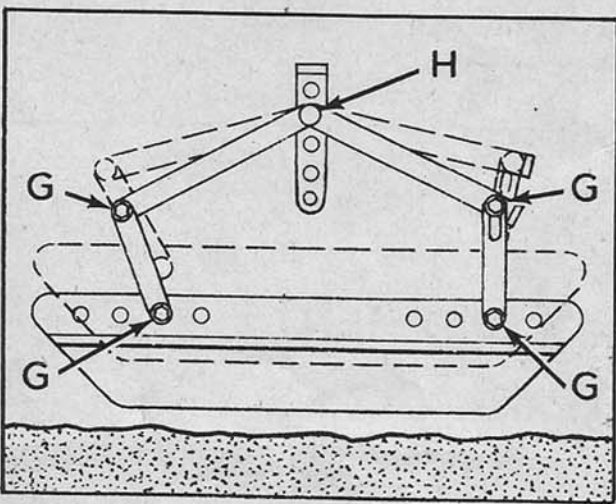


FIG. 9—FENDER ASSEMBLY

FENDER ADJUSTMENT

The height of the fenders above the ground can easily be adjusted by moving the fender toggle assembly. Bolts G are provided with bushings to give flexibility. If further height adjustment is necessary, bolt H should be removed and the entire assembly moved to the desired hole in the fender support. Bolt H should be tightened snugly. Lateral adjustment of the fenders may be accomplished by using the one-inch holes in the cultivator frame.

FIN

The fin setting plays a *most important* part in the implement operation.

The normal setting for the depth of the fin is 3" below the shovel or sweep points.

In sandy or loose soil, or on hillsides, it may have to be set 1" or even 2" deeper.

It is very important that the bolts K and L be fitted as illustrated. For example, if

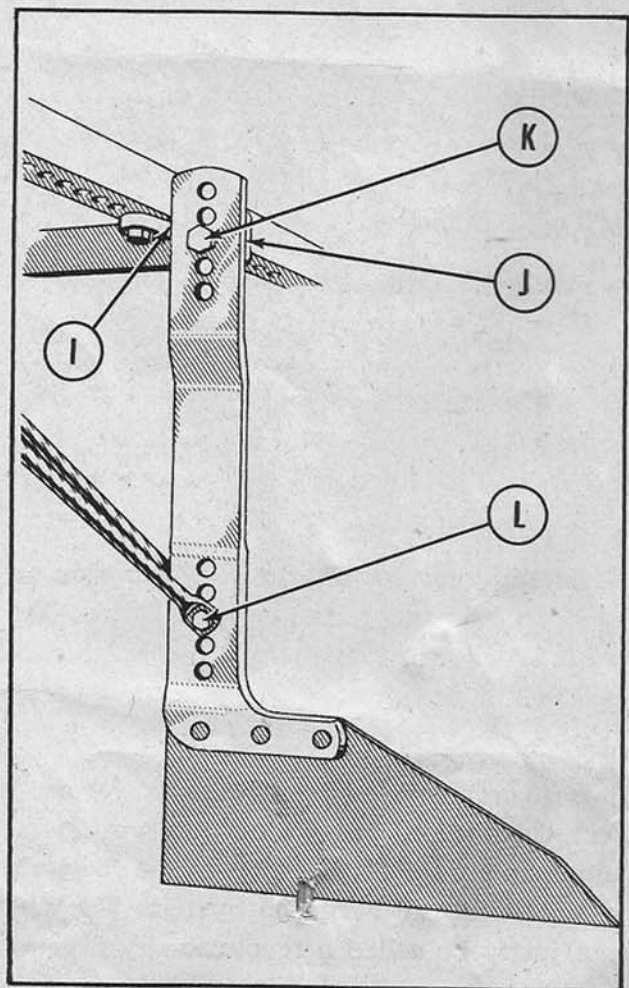


FIG. 10—STANDARD FIN

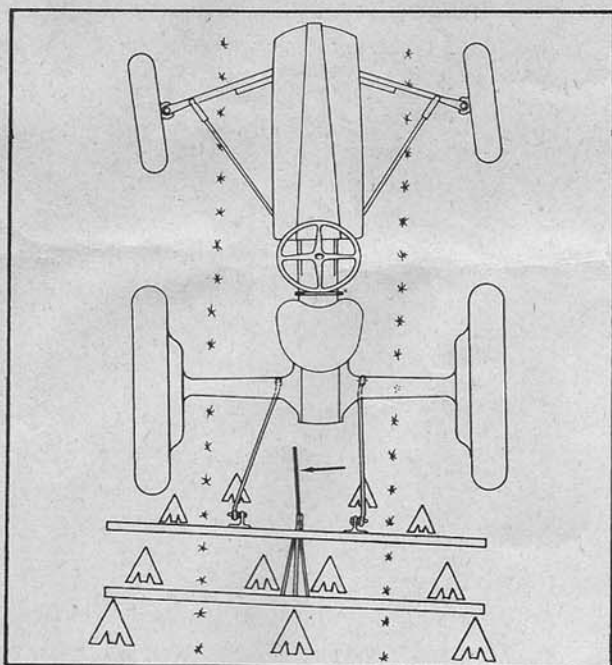


FIG. 11

HOW THE FIN STEERS THE IMPLEMENT

If, for example, the operator allows the tractor to get too close to the crop as shown at the left rear wheel, he then steers the tractor central again as shown by the front wheels.

The instant the front wheels are turned to steer the tractor back to the center of the row, a heavy soil pressure is imposed all along the side of the fin, as indicated by the arrow. This causes the fin to deflect and steer the implement to follow the front wheels, as shown.

On hillsides the tendency of the implement to fall away puts a soil pressure along the side of the fin. This steers the implement up the hill and keeps it in the correct position.

Best crops can only be obtained by perfect cultivation and perfect cultivation is impossible unless it be done at the rear, as perfected in the Ferguson System. The fin can justly be called a revolutionary invention because rear end cultivation would be impossible without it.

ROLLING FIN

The rolling fin, illustrated below, Fig. 12, is available and is recommended for trashy land. It is not recommended for rocky land. The adjustments described under the regular steering fin apply to this type fin also.

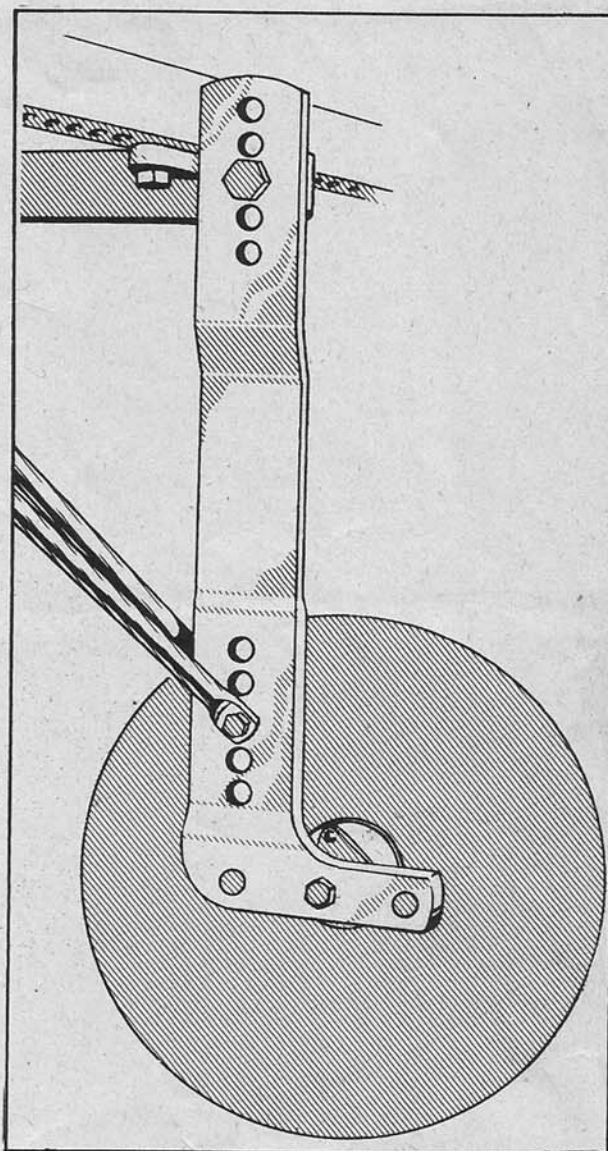


FIG. 12 —ROLLING FIN

The steering pointer (15) Fig. 7 should be set just above the row crop, and exactly centered between the two front sweeps

STORING THE CULTIVATOR

At the end of the cultivating season all dirt should be removed from the Cultivator, the sweeps covered with a heavy lubricant or good rust preventive and the frame and tine assembly painted.

See Your Dealer for Information on
FORD TRACTOR WITH FERGUSON SYSTEM



THE FERGUSON LINE

Of Implements Includes

Single-Bottom Plows	Row-Crop Cultivators
Double-Bottom Plows	Spring-Tine Cultivators
Disc Plows	Four-Row Weeders
Disc Terracers	Farm Mowers
Blade Terracers	Heavy Duty Mowers
Middlebusters	Wood Bros. Corn Pickers
Lister Planters	Wood Bros. Combines
Corn and Cotton Planters	Wood Bros. Threshers
Ridgers	Sweep Rakes
Tillers	Feed Grinders
Single Disc Harrows	Front-End Loaders
Tandem Disc Harrows	Front-End Cranes
Spring Tooth Harrows	Cross-Cut Saws
Bush & Bog Harrows	Ferguson Trailers
	Hydraulic Scoops

