

*Ferguson,*

SPRING TINE CULTIVATOR  
INSTRUCTIONS

*Ferguson-Sherman,*

MANUFACTURING CORPORATION  
DEARBORN, MICHIGAN

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## FERGUSON SPRING TINE CULTIVATOR

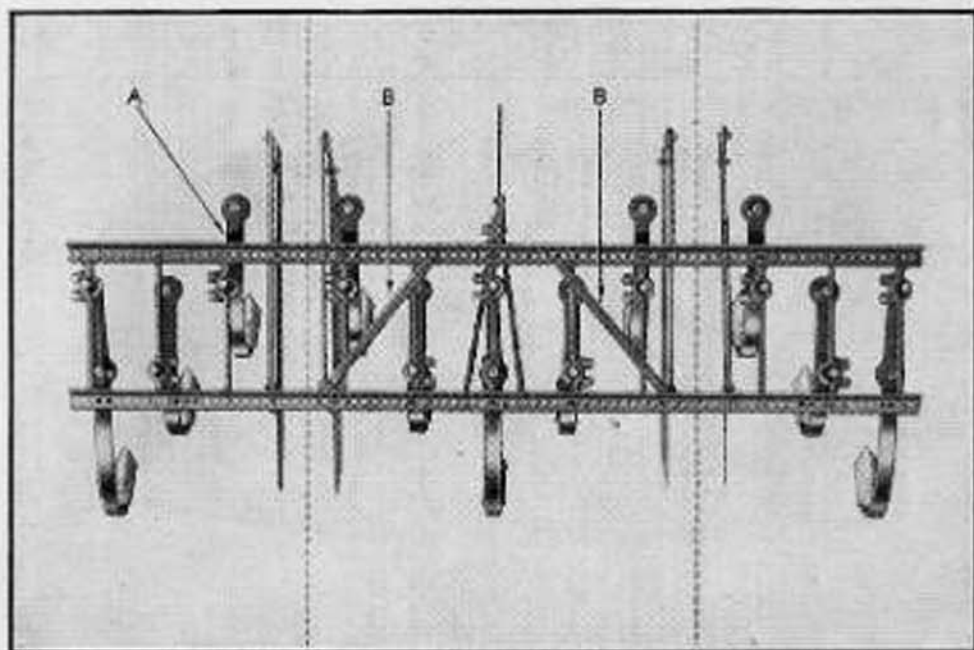


FIG. 1

This cultivator can be adapted for a wide variety of uses, some of which will now be illustrated.

Figure 1 shows the correct tine setting for cultivating two 42" rows. In order to make the pictures more clear the top structure has been removed from the implement.

Lateral adjustment of the tines should be made by shifting them on the frame. *The stem crank A should not be used except for very fine setting.*

Note the diagonal struts B-B. It is of the *utmost importance* that these be fitted and securely tightened *for all the uses* to which this cultivator can be put. Their purpose is to strengthen the construction, and also keep the fin in correct alignment for accurate row crop work.

The tractor wheels, and cultivator tines, can be adjusted for *two rows* of any width from 30" to 42".

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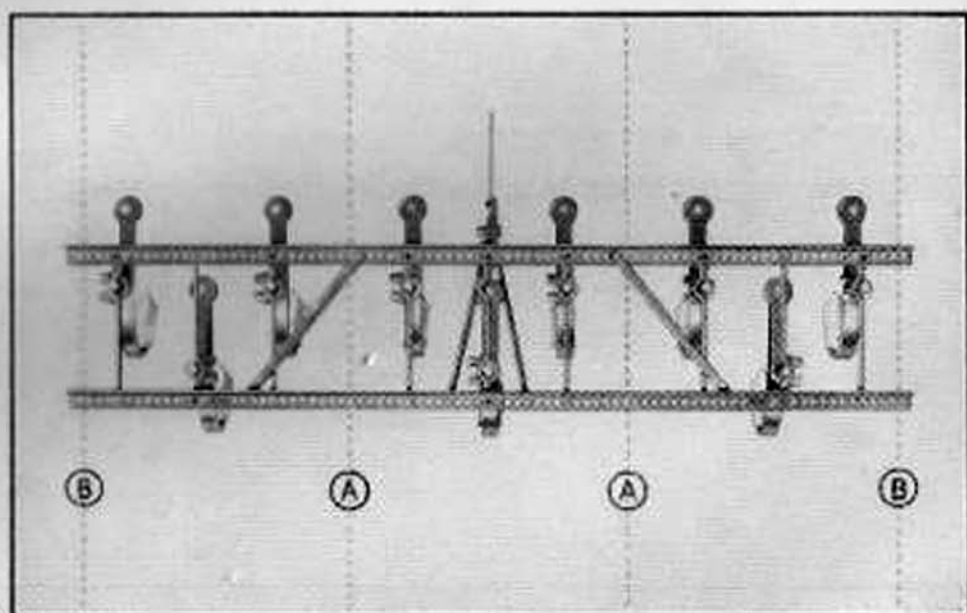


FIG. 2

Showing normal tine setting for the equivalent of three row cultivation—two rows and two half rows. This setting is recommended for the potato crop.

This setting provides for the completion of the two center rows A-A and half of the two outside rows B-B, or three complete middles.

Adjustment of the tractor wheels, and the cultivator tines, can be made for cultivating three rows of any width from 24" to 30".

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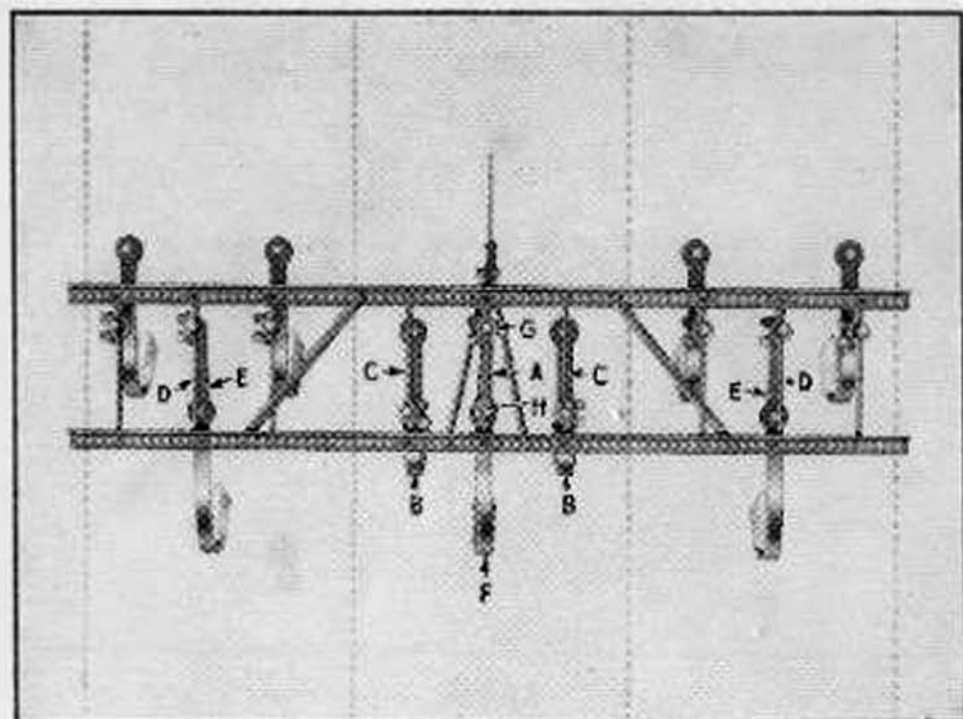


FIG. 3

Showing tine setting to provide more clearance for trashy ground. Note that the center stem G has been moved to the forward position and its crank A turned rearwardly.

Note that the two tines B-B have been set rearwardly by reversing the stem seats C-C.

Also note that the stem seats D-D have been reversed and the stem cranks E-E turned rearwardly.

Should more clearance be desired for the center tine F the stem G can be fitted at H.

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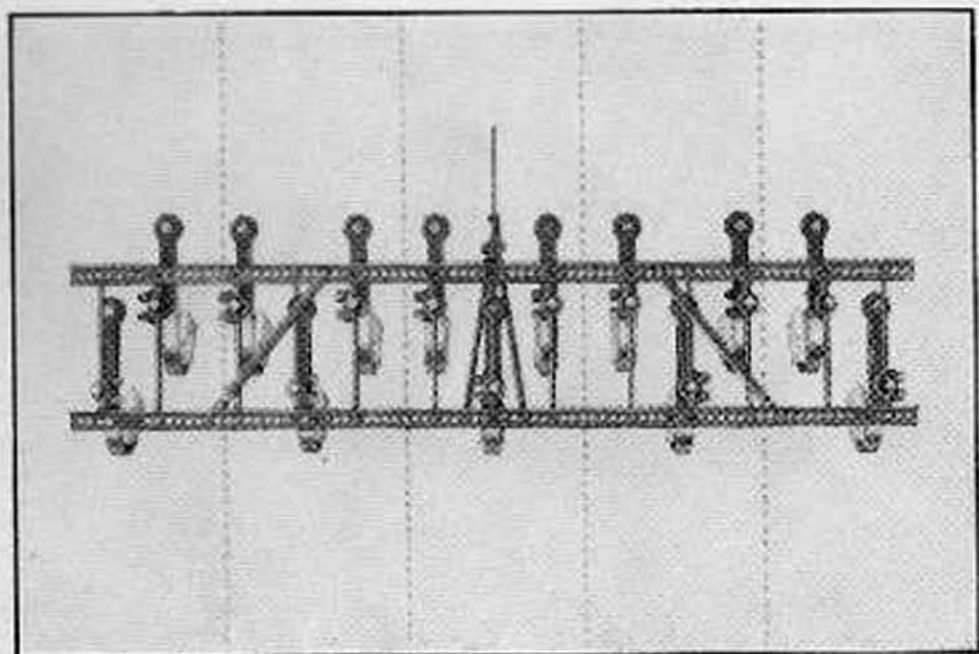


FIG. 4

Showing tine setting for finishing four complete rows. The tractor wheels and cultivator tines can be adjusted for *four rows* 18" or 19" apart.

With 8" rear tires, four rows 16", 17", or 20" apart can also be cultivated.

To complete four rows, as shown, two additional tine assemblies must be obtained or, as an alternative, the five rear tines could be left off.

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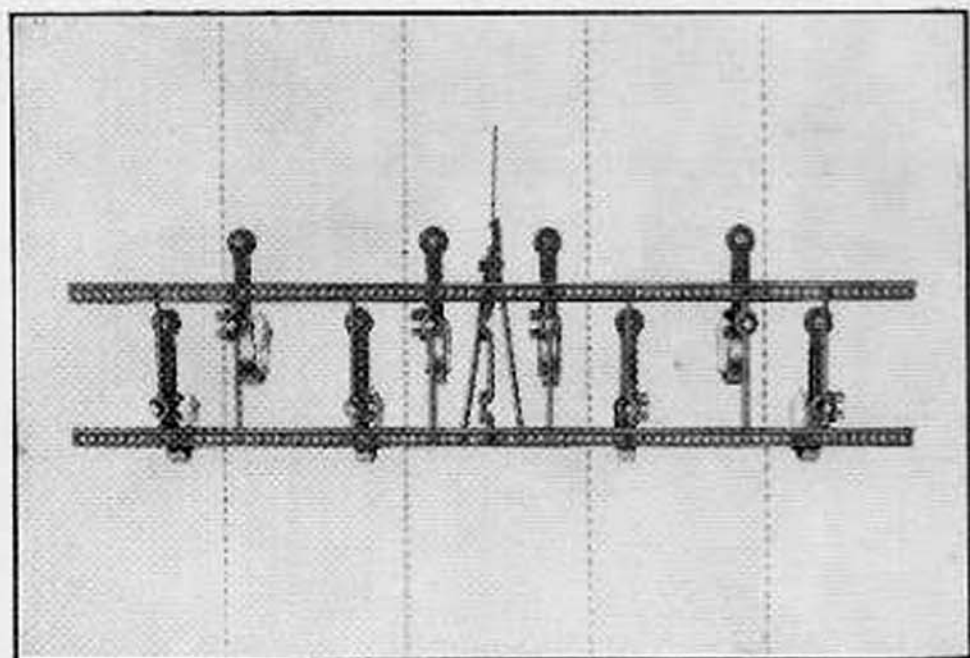


FIG. 5

Showing a simple *tine setting* for completing four rows with eight tines.

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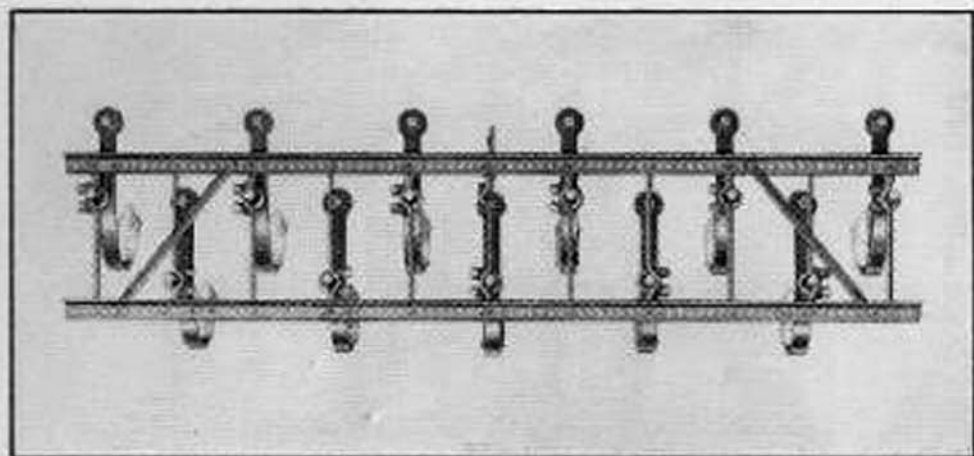


FIG. 6

Showing the correct tine setting for light general cultivation in land free from trash.

Note that the steering fin has been removed.

Warning—Best operation will always be obtained by keeping the tines as *far forward* as possible.

### WARNING

This spring tine cultivator will not operate successfully for *deep* cultivation in medium or heavy land. Under no circumstances should it be used in these conditions. Any attempt to do so would overload the tractor and cause strain on the hydraulic system. For general cultivation the cultivator should be used for light cultivation only.

The Ferguson heavy duty Tiller was specially designed for deep cultivation, and it should be used for that work.



## FERGUSON SPRING TINE CULTIVATOR

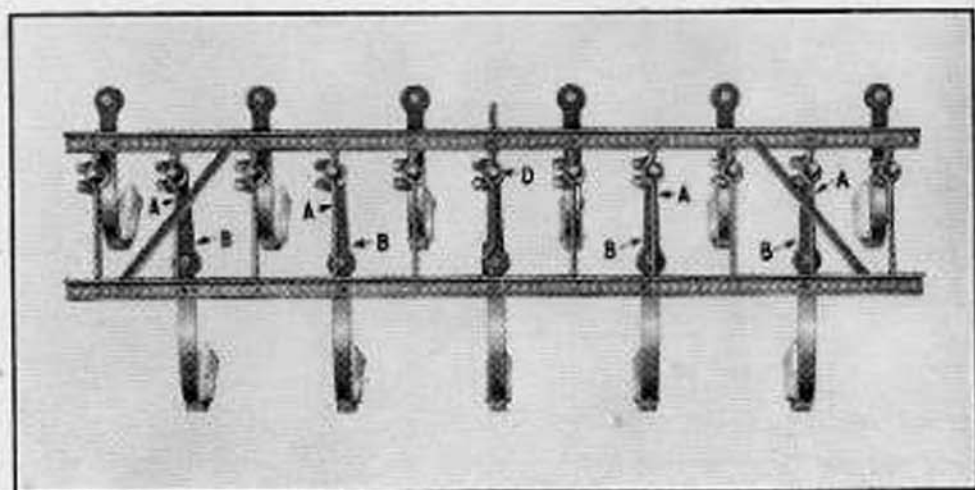


FIG. 7

Showing tine setting for trashy land.

Note that the stem seats A-A-A-A have been reversed, and the cranks B-B-B-B turned rearwardly to provide more clearance. The center stem D has been put in the forward position and its crank turned rearwardly.

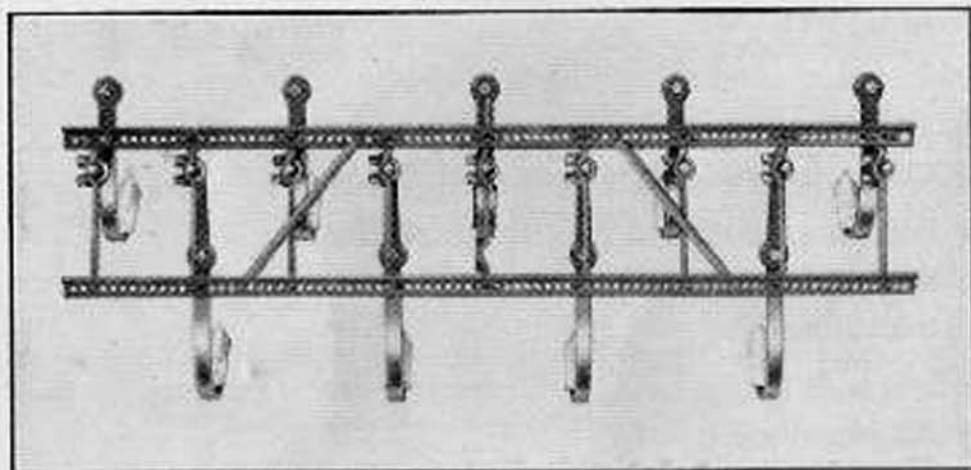
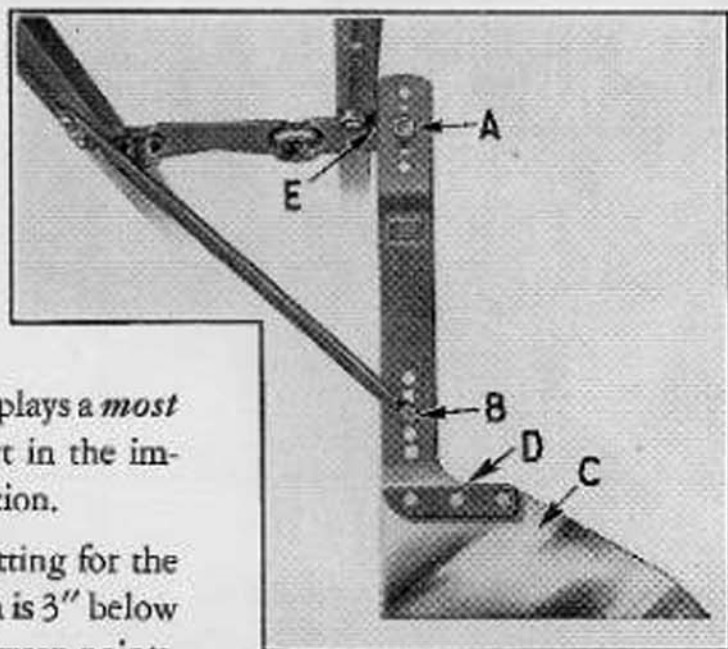


FIG. 8

Showing tine setting for extremely bad trashy conditions. Two tines have been removed.

FIG. 9



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 A and B be fitted as illustrated. For example, if 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 C to the stem D 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 E, 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 B. Make sure that the spacer through which this bolt passes is always fitted and the bolt kept *extremely tight*.

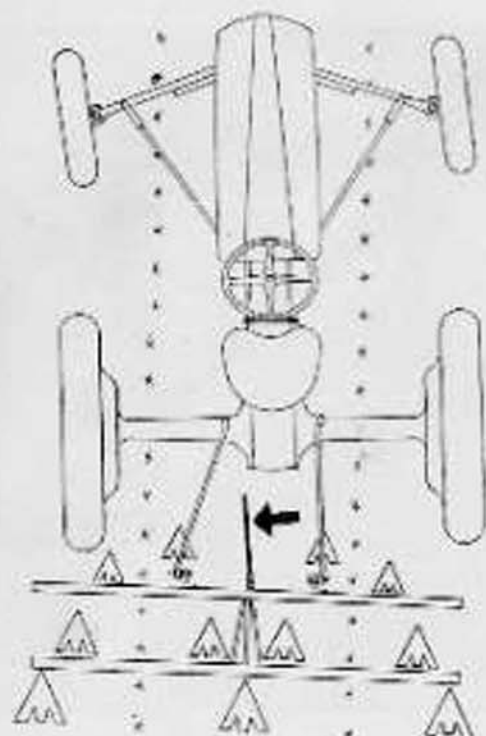


FIG. 10

## 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.

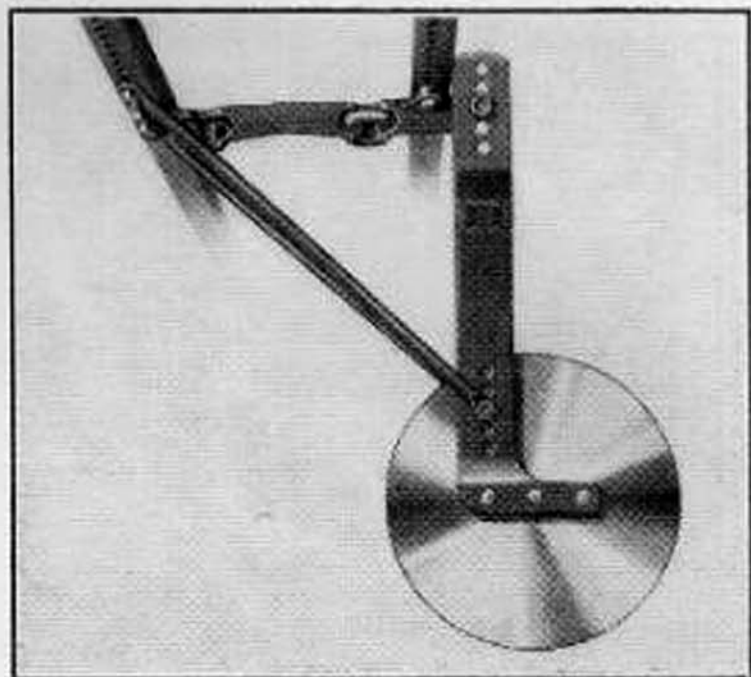


FIG. 11

Showing how the rolling fin is fitted. The same instructions apply as on Figure 9. This fin is recommended for trashy land.

### WARNING

It is not recommended for land full of small stones, as it has a tendency to ride the implement out of the ground in these conditions. In hard land, set the fin shallow to prevent riding out.

## FERGUSON SPRING TINE CULTIVATOR

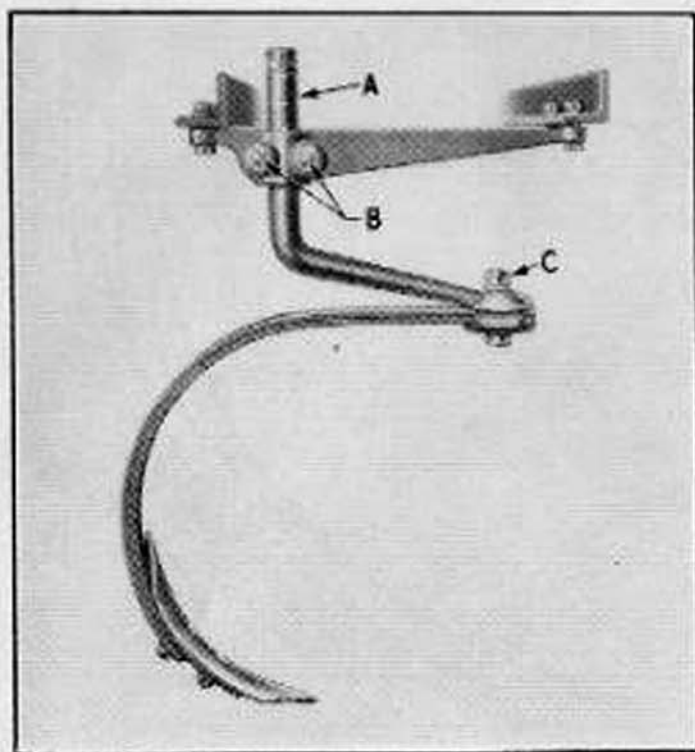


FIG. 12

The growing of the best crops is impossible without perfect cultivation. Perfect cultivation is impossible without accurate setting of the shovels or sweeps.

Undoubtedly the development of mechanized farming has been seriously delayed because of the great skill required to adjust tractor implements correctly. That skill is no longer required.

This Ferguson Implement is manufactured to automobile standards. In addition, the markings shown on the upper end of the stem "A" enable the farmer to set all ground-engaging parts with the accuracy necessary for perfect cultivation.

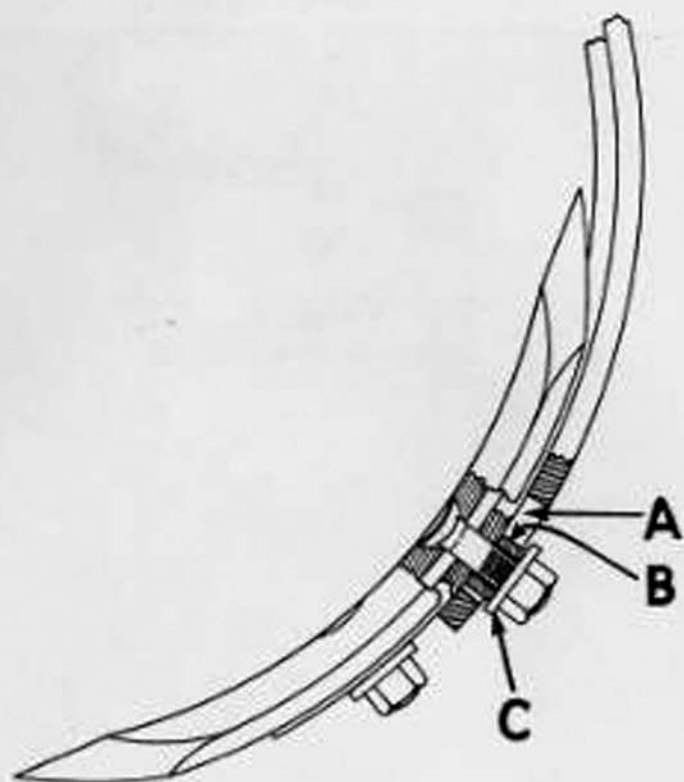


FIG. 13

Showing the attachment of the shovel to the spring tine. Note the slot A in which the spacer B is free to slide when an obstruction is encountered.

### WARNING

To avoid damage to cultivator when an obstruction is encountered, the spacer B and washer C must always be fitted as shown.

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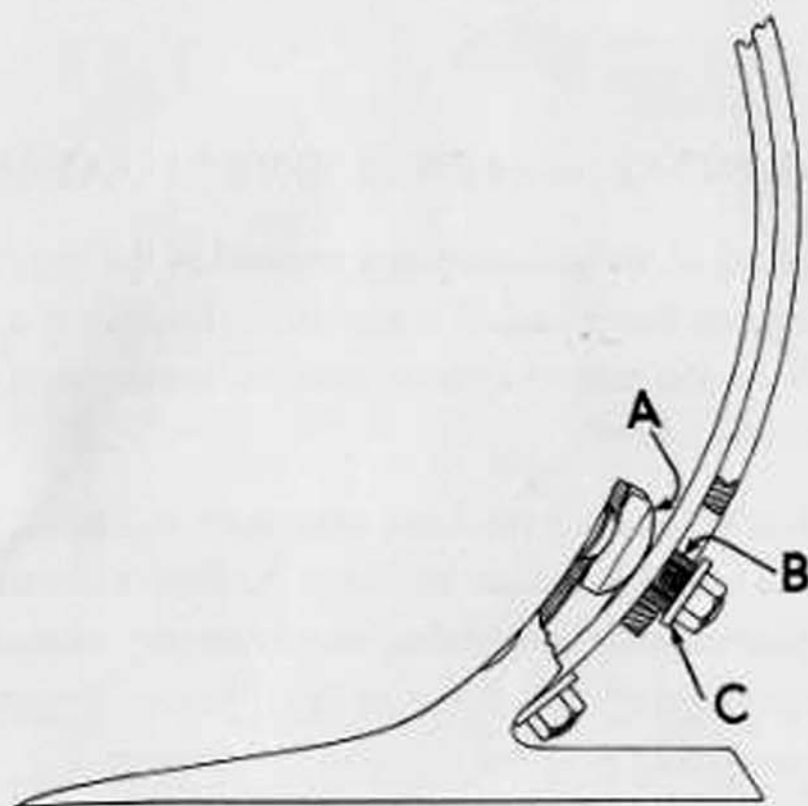


FIG. 14

Showing how sweeps are attached to the tines by using the sweep-adaptor A.

It is equally important that the spacer B and washer C should be fitted.

### WARNING

The cultivator will not operate successfully unless the specially designed Ferguson sweeps and sweep-adaptors A are used.

## WARNING AGAINST OVERLOADING

The standard of workmanship and material in the Ford Tractor with Ferguson System marks a new era in the tractor industry. Given reasonable care this tractor may give twenty years service on the average farm.

Continuous overloading can cause more wear on a tractor in 100 hours than would be caused by correct loading in thousands of hours. Continuously overloading overheats the lubricant and breaks down the oil film. Metal to metal contact is then made, which causes rapid wear and excessive fuel consumption.

## A SIMPLE TEST OF OVERLOADING

With the tractor in motion set the throttle lever half way down the quadrant. Then quickly flick the throttle fully open. If the tractor speeds up rapidly the engine is not overloaded—if slowly, the engine is overloaded. These remarks apply to *any* tractor. The overloading should be remedied at once to avoid serious damage.

When operating up a steep hill the above test might indicate overloading. This is not harmful, as it is compensated for when coming down the hill.

It is *continuous* overloading that must be avoided.



## LUBRICATION

The elimination of lubrication from this implement is due to the Ferguson System. It assures greater durability, longer life, and lower production costs for the farmer.

We recommend, however, that all bolt threads should be coated with tractor grease when making adjustments. This is important in order to get the U bolts and  $\frac{5}{8}$ " bolts shown at B and C on Fig. 12 sufficiently tight.

