Fig. 1.

Fig. 4.

Fig. 5.

Charlie Elmer Barrett

By

Attorneys
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ADJUSTABLE SPRING FOOT FOR CULTIVATORS

Charlie Elmer Barrett, Ashdown, Ark.

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2 Claims. (Cl. 97—184)

The present invention relates to new and useful improvements in cultivators and more particularly to an adjustable spring cultivator foot whereby the shovelf or blade carried by the foot may be easily and quickly adjusted at a desired angle.

An important object of the present invention is to provide a spring cultivator foot pivoted at the lower end of a standard to swing in a rearward direction with respect to the beam when the shovelf or blade comes into contact with an obstruction together with screw adjusting means for regulating the angle of the foot with respect to the standard.

Another object of the invention is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view;
Figure 2 is a side elevational view;
Figure 3 is a vertical sectional view taken on the line 3—3 of Figure 2;
Figure 4 is a vertical sectional view through the pivoted foot and showing the screw adjusting means therefor, and
Figure 5 is a perspective view.

Referring now to the drawings in detail wherein the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates a standard having a foot 6 pivoted at its lower end by means of a bolt and nut 7. The upper end of the foot above the pivot 7 projects forwardly of the standard as shown at 8 and pivoted to the upper end thereof and positioned at opposite sides of the standard are a pair of links 9 which extend rearwardly in a substantially horizontal position.

A slide 10 is pivoted to the rear ends of the links 9, the slide being provided with a pair of upwardly extending rivets or headed pins 11 which are slidable in a slot 12 formed in the bottom of a hollow arm 13 which is pivoted at its front end to the standard 5 by means of a pin 14.

The arm 13 is constructed of an inverted channel-shaped member 15 having outwardly projecting flanges 16 at its lower edges suitably secured to a bottom plate 17 which closes the bottom of the channel member and in which the slot 12 is formed.

The rear end of the plate 17 is formed with the downwardly extending flange 18 having an opening 19 therein with its edges received in a circumferential groove 20 in a shank 21 at the rear end of an adjusting screw 22 to rotatably support the screw under the arm and to hold the screw against longitudinal movement. The screw 22 is threaded in a boss 23 at the rear end of the slide 10 and the rear end of the shank 21 is formed with an operating wheel 24.

A stationary arm 25 is secured at its front end to the standard 5 by a pair of bolts 26 and a set screw 27 is threaded vertically through the rear end of the arm 25 with its lower end engaging the top of the pivoted arm 13. The arm 25 is formed with a vertical opening 26 through which a vertical rod 29 extends, the lower end of the rod having an eye 30 which is pivoted on a transverse pin 31 carried by the pivoted arm 13. A coil spring 32 surrounds the upper portion of the rod 29 with its lower end bearing against the stationary arm 25 and its upper end bearing against the washer 33 secured to the upper end of the rod bias nut 34. A cultivator shovelf or blade 35 is secured to the lower end of the rod 29 and the upper end of the standard 5 is secured to a beam 36 by U-bolts 37.

In the operation of the device, the lower end of the foot 6 is adapted to swing rearwardly upon contact with an obstruction, such rearward movement of the lower end of the foot bringing the upper end 8 thereof forward and through its connection with the pivoted arm 13 by the links 9 and slide 10, except downward influence on the arm 13 against the tension of the spring 32. The spring 32 thus yieldably maintains the lower end of the foot in a forwardly projected position.

The angle of the foot 6 may be adjusted by moving the slide 10 forwardly or rearwardly of the pivoted arm 13 through the manipulation of the adjusting screw 22.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully compre-
handed by the spirit of the invention as herein described and the scope of the appended claims.

I claim:

1. An arm having a foot pivoted thereon and spring biased to move in one direction relative to the arm, means carried by the arm for adjusting the inclination of the foot, said means including a slide working against the underside of the arm and connected to the foot, an internally threaded boss on the slide, an adjusting screw threaded in the boss to move the slide longitudinally on the pivoted arm to adjust the inclination of the foot, and a rigid bearing for the screw carried by the arm, said boss and said bearing being in fixed alignment with each other for freely working the screw therein.

2. A standard, an arm rigidly mounted thereon, a foot pivoted on the standard, spring biasing means for the foot, a pivoted arm carried by the standard in substantial parallelism to the rigid arm and connected to the foot, said pivoted arm having a slot, a slide working against the underside of said pivoted arm and supported in said slot, an internally threaded boss on the slide, an adjusting screw threaded in the boss to move the slide longitudinally on the pivoted arm to adjust the inclination of the foot, and a rigid bearing for the screw carried by the arm, said boss and said bearing being in fixed alignment with each other for freely working the screw therein.

CHARLIE ELMER BARRETT.

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