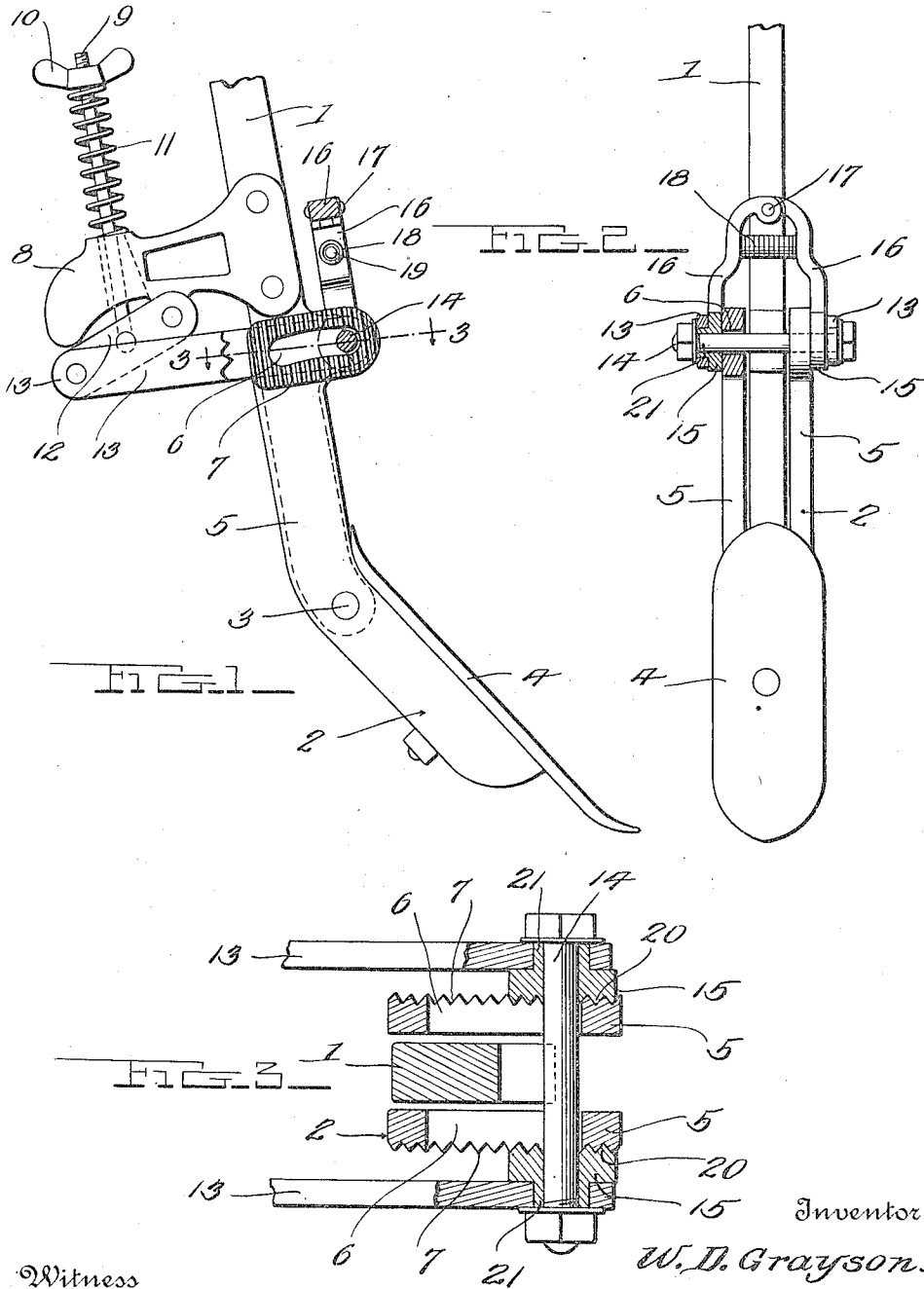


W. D. GRAYSON.
 SPRING FOOT CULTIVATOR ATTACHMENT.
 APPLICATION FILED AUG. 24, 1916.

1,207,162.

Patented Dec. 5, 1916.



Witness
 J. P. Pierce

Inventor
 W. D. Grayson
 By *A. Wilson*
 Attorneys

UNITED STATES PATENT OFFICE.

WILBER D. GRAYSON, OF BOGATA, TEXAS.

SPRING-FOOT-CULTIVATOR ATTACHMENT.

1,207,162.

Specification of Letters Patent.

Patented Dec. 5, 1916.

Application filed August 24, 1916. Serial No. 116,680.

To all whom it may concern:

Be it known that I, WILBER D. GRAYSON, a citizen of the United States, residing at Bogata, in the county of Red River and State of Texas, have invented certain new and useful Improvements in Spring-Foot-Cultivator Attachments; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention aims to provide simple and efficient means for spreading the links which lead from the spring devices of spring foot cultivators to the tilting shoes thereof, to permit more easy adjustment of said shoes to different angles when the bolts connecting them with the links are loosened.

To this end the invention resides in certain novel features of construction and in unique combinations of parts to be herein-after fully described with reference to the accompanying drawings.

In these drawings: Figure 1 is a side elevation of a cultivator standard and what is known as a spring foot attached thereto, showing the application of the invention, parts being broken away; Fig. 2 is a front elevation of the parts shown in Fig. 1 with parts broken away and in section; and, Fig. 3 is a horizontal sectional view on substantially the plane indicated by the line 3—3 of Fig. 1.

The numeral 1 throughout the several views designates a cultivator standard to the lower end of which a swinging foot 2 is pivoted between its ends as indicated at 3, said foot carrying the usual shovel or cultivator blade 4. The foot 2 is bifurcated in the well known manner and the furcations 5 thereof are increased in width at their upper ends and formed with transverse slots 6, teeth 7 being provided on the outer sides of said furcations.

A bracket 8 projects rearwardly from the standard above the foot 2 and a vertical rod 9 is mounted slidably in an opening formed through said bracket, the upper end of said rod having thereon a stop 10 between which and the bracket a stiff coil spring 11 is disposed. The lower end of rod 9 is pivoted to an inclined lever 12 from whose lower end a pair of links 13 lead forwardly adjacent the slotted upper ends of the furcations 5, a bolt 14 being passed through the front ends of said links and through the slots 6 for ad-

justably securing the foot to said links. Heretofore it has been the common practice to interpose toothed washers between the links 13 and the upper ends of the furcations 5 with the teeth thereof engaging the teeth 7 whereby when the angle of the foot is changed, tightening of the bolt will retain the same in its adjusted position. It has been found, however, that when setting the foot to any desired angle, it is a difficult matter to separate the teeth of the washers from the teeth of the foot and the present invention therefore aims to provide simple means for spreading the links 13 and at the same time disengaging the teeth of the washers from teeth 7.

Under the present invention, the washers 15 are formed integrally with the lower ends of a pair of arms 16 which are hinged together at their upper ends as shown at 17, a coiled spring 18 being interposed between said arms and held in place by studs 19 on the latter fitting into said spring. The inner faces of the washers 15 are provided with teeth 20 to intermesh with the teeth 7 and the outer sides thereof are preferably equipped with hollow bosses 21 for reception in the bolt holes at the front ends of the links 13.

By the arrangement of parts described, when the bolt 14 is loosened, the spring 18 will spread the two arms 16 and the links 13, thus throwing the teeth 20 out of mesh with the teeth 7 and permitting easy adjustment of the foot 2; and obviously when bolt 14 is again tightened, the two sets of teeth will be engaged so as to effectively hold the foot in adjusted position. The improved device does not in any way affect the operation of the spring foot when coming in contact with obstructions, it being obvious from the drawings that when this occurs the rear end of the foot being held against movement will cause the upper end thereof to move forwardly, thus rocking the lever 12 against the tension of spring 11 until the foot has passed the obstruction, after which said spring will return the parts to normal.

From the foregoing it will be understood that although the invention is simple and inexpensive, it is an efficient device for the purpose for which it is designed and will greatly reduce the work required in adjusting the spring feet of cultivators.

The drawing illustrates the preferred em-

bodiment of the device and the same has been described herein but it is to be understood that within the scope of the invention as claimed numerous changes may be made
5 without sacrificing the principal advantages.

I claim:

1. The combination with a swinging cultivator foot having a transverse slot and teeth adjacent said slot, a spring device,
10 links leading from said device to the foot adjacent the slotted portion thereof, and a bolt passing through said links and through the slot; of washers on the bolt between the links and foot, said washers having teeth
15 engaging those of said foot, and means for disengaging the two sets of teeth when the bolt is loosened.

2. A link spreader for spring foot culti-

vators comprising a pair of alined washers having teeth on their inner opposed faces, 20 a pair of arms projecting from said washers and hingedly connected, and a spring for forcing said arms apart.

3. A link spreader for spring foot cultivators comprising a pair of alined washers 25 having teeth on their inner faces, and means connecting said washers and serving to force the same outwardly away from each other.

In testimony whereof I have hereunto 30 set my hand in the presence of two subscribing witnesses.

WILBER D. GRAYSON.

Witnesses:

J. W. HOWISON,
E. G. CUTCHINGS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."