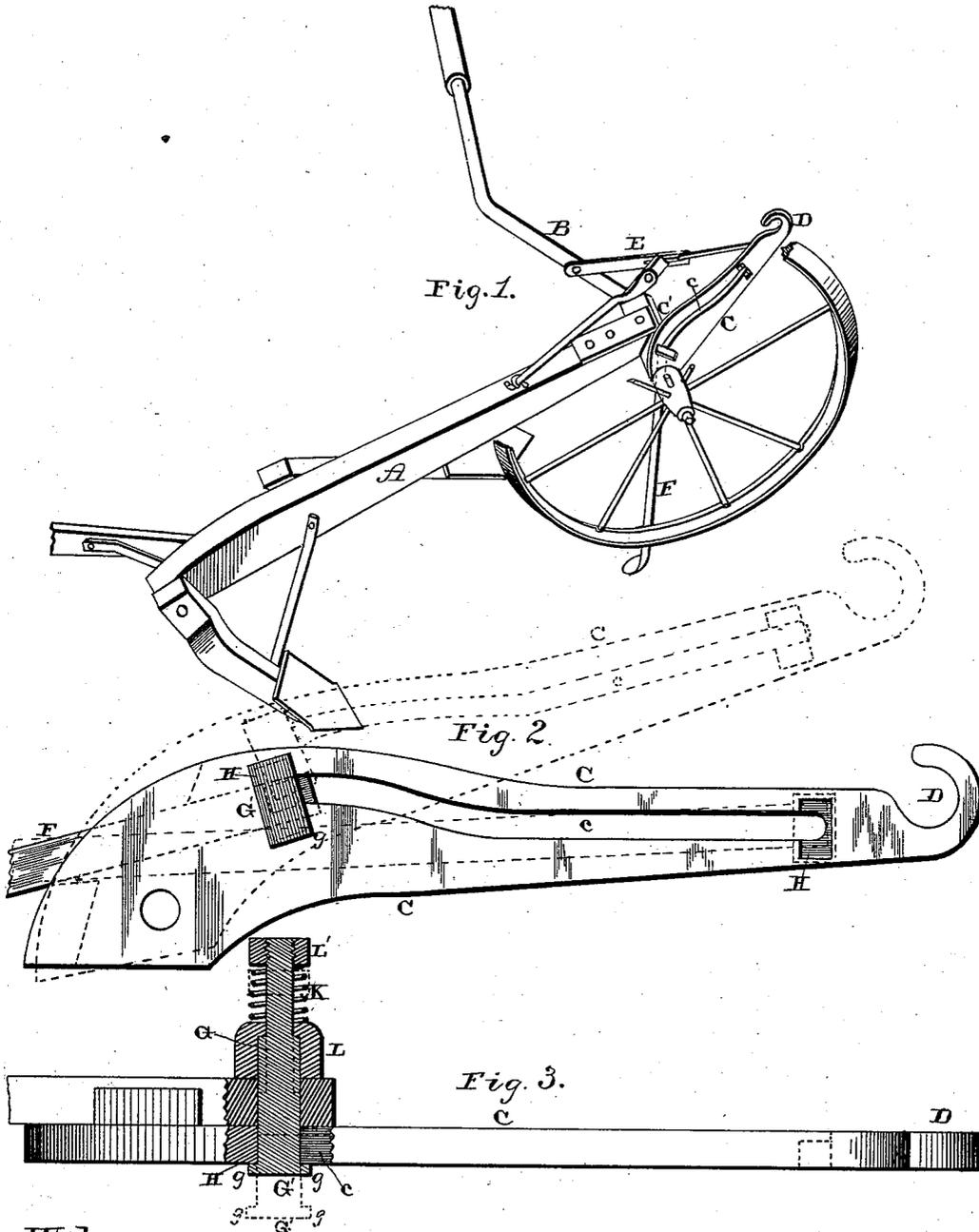


(No Model.)

J. D. MONAGHAN.  
SLIDE FOR TONGUELESS CULTIVATORS.

No. 533,962.

Patented Feb. 12, 1895.



Witnesses.

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*John D. Monaghan,*  
*by Franklin H. Hough,*  
*att'y.*

# UNITED STATES PATENT OFFICE.

JOHN DANIEL MONAGHAN, OF VINCENT, IOWA.

## SLIDE FOR TONGUELESS CULTIVATORS.

SPECIFICATION forming part of Letters Patent No. 533,962, dated February 12, 1895.

Application filed October 4, 1894. Serial No. 525,046. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN DANIEL MONAGHAN, a citizen of the United States, residing at Vincent, in the county of Webster and State of Iowa, have invented certain new and useful Improvements in Slides for Tongueless Cultivators; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in cultivators and more especially to the class of tongueless cultivators having axles hinged so that the vertical side portions of the elevated portion of the axle may be oscillated independently in vertical planes.

My design is to improve upon the construction of the draft plates and the adjustable runner or shoe as shown in the well known Pattee cultivator, Patent No. 195,042, of September 11, 1877, by which improvement the runners which are held in slots of the draft plate are retained by a spring actuated bolt, thus dispensing with the use of a wrench for unloosening the nut, it merely being necessary in my invention to press in on a burr at the outer end of the spring, and the bolt may be readily released and slid along the slot to the other end if desired.

To these ends and to such others as the invention may relate, the same consists further in the novel construction, combination and adaptation of the parts as will be hereinafter more fully described and then specifically defined in the appended claim.

I clearly illustrate my invention in the accompanying drawings, which with the letters of reference marked thereon form a part of this specification, and in which drawings—

Figure 1 is a perspective view of the draft plate as attached to a cultivator and carrying in its slot the ground shoe. Fig. 2, is an en-

larged detail view of the draft plate and shoe; Fig. 3, a sectional view through the spring actuated bolt, shoe and draft bar.

Reference now being had to the details of the drawings by letter, A designates the plow beams; B, the axle; C, a draft bar or plate, which is hinged in any suitable way, to the part C' of the axle, and the forward end formed into a hook D to which it is designed to attach the singletree.

E is a brace from the axle to the draft plate and is slotted to permit the draft plate to oscillate.

F is a runner or shoe, its upper end adjustably held in the slot *c* by the spring actuated bolt G, which is provided with an elongated flattened head G', with ears *g*, which head is designed to be held in a recess H, by means of the spring K interposed between the washer L, and the burr or cap L' which screws on to the threaded end of the bolt G. A similar shaped recess is provided at each end of the longitudinal slot *c*, whereby, when it is desired to change the shoe, which is held at one end of the slot *c*, to the recess at the extreme end thereof, by simply pressing upon the burr L', the head of the bolt will be released from the recess H in which it is seated, and will be in the position, seen in dotted lines G', and may be readily slid along the slot *c*, and when the head of the bolt comes to the recess at the extreme end of the longitudinal slot, the head of the bolt, under the tension of the spring K, will drop or lower into the said recess, thus changing the angle of the draw bar or plate C. By this arrangement of the spring actuated bolt, in which resides the gist of my invention, it will be readily seen that the necessity of having a wrench, will be dispensed with, and that the change of the shoe from one recess H to a similarly shaped one at the extreme end of the slot *c*, may be readily and quickly accomplished.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

In a draft plate and sliding shoe, for a  
tongueless cultivator, the combination of the  
draft plate C, slotted as described and pro-  
vided with the transverse recesses at each  
5 end of the slot, of the spring actuated bolt G  
having a head G' and ears g, which head is  
adapted to be held in one of the said re-  
cesses, and the shoe F adjustably held to the  
draft plate by the said bolt and its cap and

washer all substantially as shown and de- 10  
scribed.

In testimony whereof I affix my signature  
in presence of two witnesses.

JOHN DANIEL MONAGHAN.

Witnesses:

T. F. HOYT,  
PETER MONAGHAN.