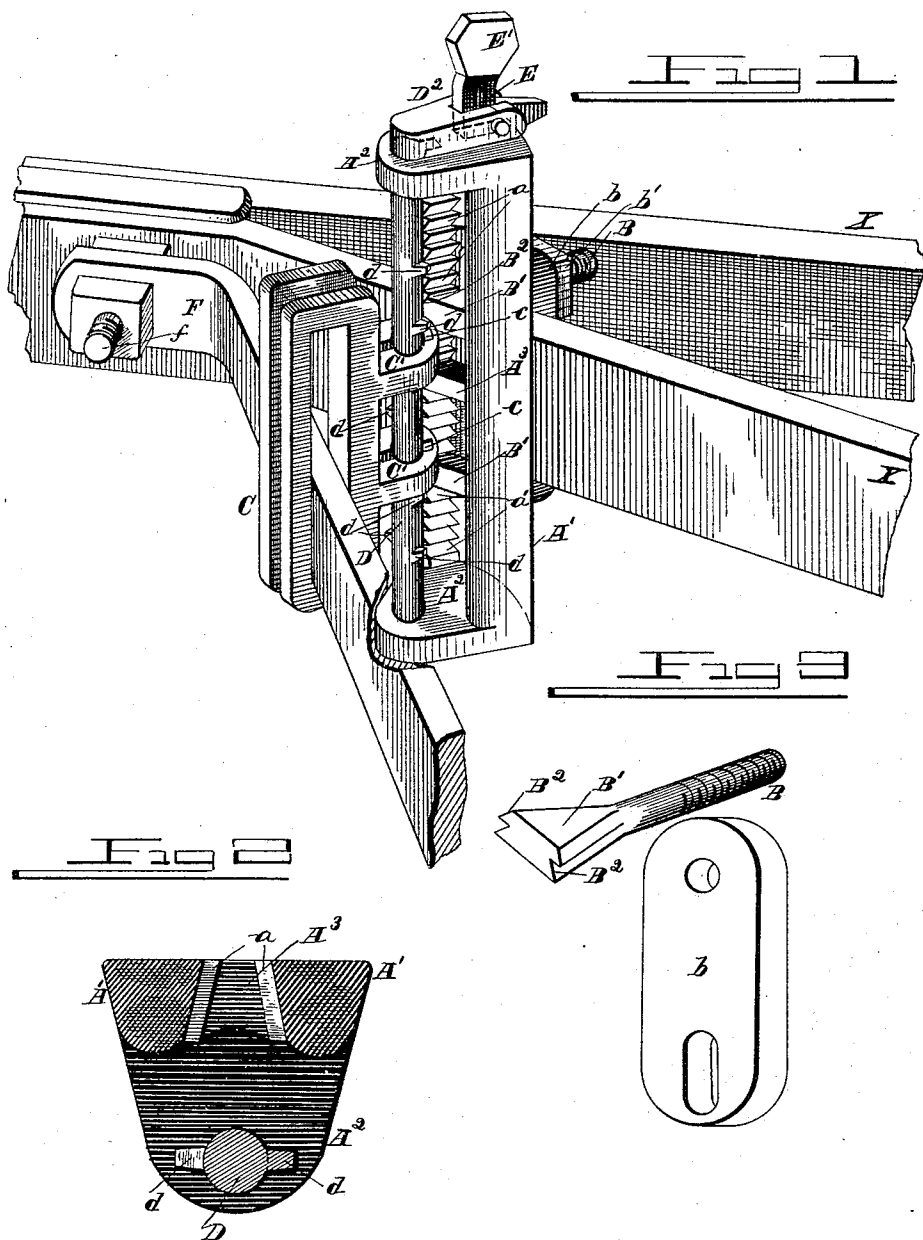


(No Model.)

C. C. SHANBECK.
FENDER.

No. 481,065.

Patented Aug. 16, 1892.



Witnesses

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FENDER.

SPECIFICATION forming part of Letters Patent No. 481,065, dated August 16, 1892.

Application filed March 21, 1892. Serial No. 425,750. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS C. SHANBECK, of Pettit, in the county of Tippecanoe and State of Indiana, have invented certain
5 new and useful Improvements in Fender-Regulators for Cultivators, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to
10 the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a perspective view of my improved fender regulator or adjusting device for cultivators, &c. Fig. 2 is a detail transverse section through the supporter, and Fig.
15 3 is a detail view.

This invention is an improved adjusting device for fenders on harrows, cultivators, &c., which fenders are designed to prevent
20 injury to the plants while they are being cultivated; and its object is to provide a device whereby the fenders may be quickly adjusted vertically, be allowed a vertical play independent of or in addition to their vertical adjustment, and may also be adjusted laterally,
25 and also to make the adjusting device applicable or attachable to various forms and sizes of cultivator or harrow irons.

The invention therefore consists in a novel
30 supporting device for the regulator which can be quickly attached to and adjusted on the cultivator-beams, and in combination with a fender-regulator and a device by which the regulator can be quickly connected to or
35 removed from and adjusted vertically on the supporter, and in certain other novel details of construction and combinations of parts hereinafter described and claimed.

In the drawings I have simply shown the
40 adjusting device applied to a cultivator iron or beam, not showing the cultivator or harrow complete nor the shield or fender itself, as such parts may be of any well-known or approved construction, and the invention has no
45 relation to any particular construction of either harrow or cultivator.

Referring to the drawings by letters, X designates a cultivator or harrow beam or bar. The supporter consists of a metallic rectangular frame standing vertical and perpendicular to the beam X and formed of two parallel side bars A' A', connected at top and
50

bottom by plates A² A², which project forward or outward beyond the front sides of the bars to form supports and bearings for a removable
55 shaft D, hereinafter referred to. The bars A' are connected at center by a web A³. Above this web the opposed faces of the side bars are formed with upwardly-pointed ratchet-teeth *a a*, and below these bars with downwardly-pointed ratchet-teeth *a' a'*, as shown. The inner toothed faces of the side bars are not parallel, but their rear edges are nearer each other than their front edges, so that the space between the bars and teeth is wedge-
60 shape in cross-section, Fig. 2.

B B designate securing-bolts having enlarged flattened and wedge-shaped heads B', which are toothed or serrated on their side edges, as at B², to engage the teeth *a* or *a'* of
70 the supporter. Two such bolts are used to connect the supporter to the beam, one being slipped through the space above web A³ and the other below the web, with their serrated edges in engagement with the teeth *a a'*, respectively. The rear threaded ends of the bolts are passed through openings in a clip-plate *b* on the side of beam opposite the supporter, and are bound by nuts *b'*, as indicated
75 in the drawings. The supporter is thus firmly clamped to the beam, and owing to the opposite inclinations of the ratchet-teeth *a a'* it is simultaneously strained vertically, and the bolts are likewise clamped to the top and bottom edges of the beam. One of the openings
80 in the plate *b* should be elongated, so as to permit the supporter to be secured to beams of different thicknesses or heights. The serrated heads of the bolts will interlock with any of the teeth *a a'* of the supporter and may
85 be thus readily shifted to fit closely to beams of different heights. By this construction the supporter may be secured to various widths and forms of beams and closely bound thereto, so that it will be upheld in a vertical
90 position and cannot twist or turn.

C designates the regulator, which consists of a vertically-slotted plate having lateral ears C' C', which are vertically perforated, and through which passes a shaft D, which is
100 supported on and journaled in the top and bottom plates A² of the supporter. This shaft is provided with a series of alternating diametrically-opposite radiating lugs *d d*, and

the opening in top plate A^2 , through which the shaft passes, is formed with a radial slot a^2 , as indicated in dotted lines in Fig. 1, to permit these lugs to pass as the shaft is inserted or withdrawn therethrough. The openings in ears C' also have diametrically-opposite slots c to permit the insertion of the lugged shaft D therethrough. The lugs d and ears C' are so made relatively with each other that when the regulator is adjusted on the shaft above the lower plate A^2 one ear rests on a lug d at one side of the shaft and the other ear rests on a lug at the opposite side of the shaft, as indicated in the drawings, while the lugs d immediately above the ears prevent the regulator moving vertically up or down on the shaft so long as it is in engagement with the fender-arm, and the shaft is locked in a position to hold the lugs d at right angles to slots c and a^2 . The shaft is locked in such position by means of a crank-dog E , which is pivoted to the cranked upper end D^2 of the shaft above the top plate A^2 and has a weighted head E' at right angles to its teeth, and when the shaft is turned to locking position the dog engages a notch a^3 in the top plate A^2 and firmly locks the shaft against rotatory movement, while at the same time the uppermost lug d thereon turns under the top plate A^2 at right angles to slot a^2 and effectually locks the shaft D in the supporter and prevents its moving vertically.

F designates the fender-supporting arm, which is pivoted to the beam X in front of the supporter A by a bolt f , as shown, and extends rearwardly and outwardly, passing through the vertical slot in the regulator-plate C , as shown, preventing the regulator turning on shaft D , and in turn being limited in its downward movement and adjusted vertically by the adjustment of the regulator on the shaft. The slot is of greater length than the width or height of arm F , so that the fender-arm has a limited amount of free vertical play, no matter in what position the regulator is adjusted.

It will be obvious from the foregoing that the fender-arm may be adjusted vertically in two ways: first, by the vertical adjustment of the supporter; second, by the vertical adjustment of the regulator on the supporter, and this latter is the most useful of the adjustments, as by simply partly rotating shaft D the fender can be raised or lowered to any position desired and then locked in such position by locking the shaft D , as before described. The fender may also be adjusted laterally in relation to the beam by moving

the supporter toward or from the bolt f , as is evident.

This device is especially useful in cultivating corn, cotton, and other plants where the growth of the plants is for any reason (as by different plantings, fertilizing, &c.) unequal in different parts of the field or in different parts of the row, as the workman can speedily and easily shift the fenders in a few seconds' time without trouble and without the aid of wrenches or hammers.

As various modifications may be made in the forms of the several parts, I do not limit myself to the precise construction herein specified.

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

1. The combination of the beam and fender-bar and the supporter adjustably attached to the beam, with the lugged shaft attached to said supporter and the fender-regulator adjustably mounted on said shaft, all constructed and arranged to operate substantially as and for the purpose set forth.

2. The combination of the supporter having parallel toothed side bars with the securing-bolts having toothed heads adapted to engage the teeth of said bars, substantially as described, and a fender-regulator attached to said supporter, substantially as and for the purpose described.

3. The combination of the beam and fender-bar and the supporter having parallel side bars provided with oppositely-pointing ratchet-teeth above and below their centers, respectively, on their inner opposed faces, with the wedge-headed bolts having notches or teeth in their heads to engage the teeth of the said bars, the clip-plate, and securing-nuts, and the fender-regulator attached to said supporter, substantially as described.

4. The combination of the beam and fender-bar, the supporter attached to beam, and the lugged shaft removably journaled in said supporter, and its locking-dog, with the slotted fender-regulator plate having lateral perforated and slotted ears engaging said shaft and adjustable thereon, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CORNELIUS C. SHANBECK.

Witnesses:

JOHN W. SHANBECK,
DANIEL C. SHANBECK.