

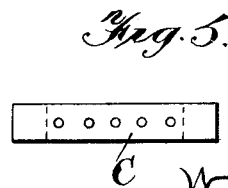
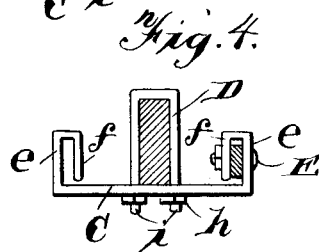
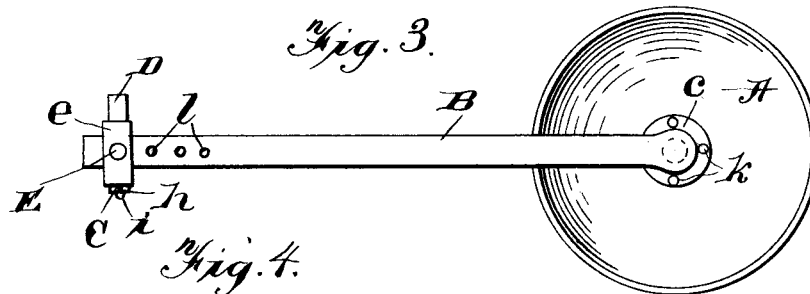
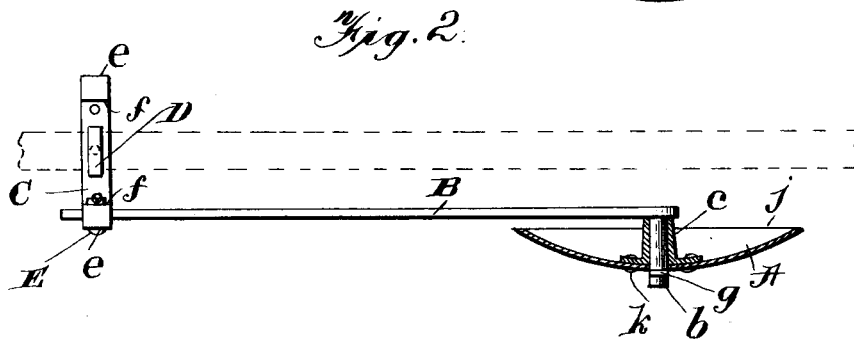
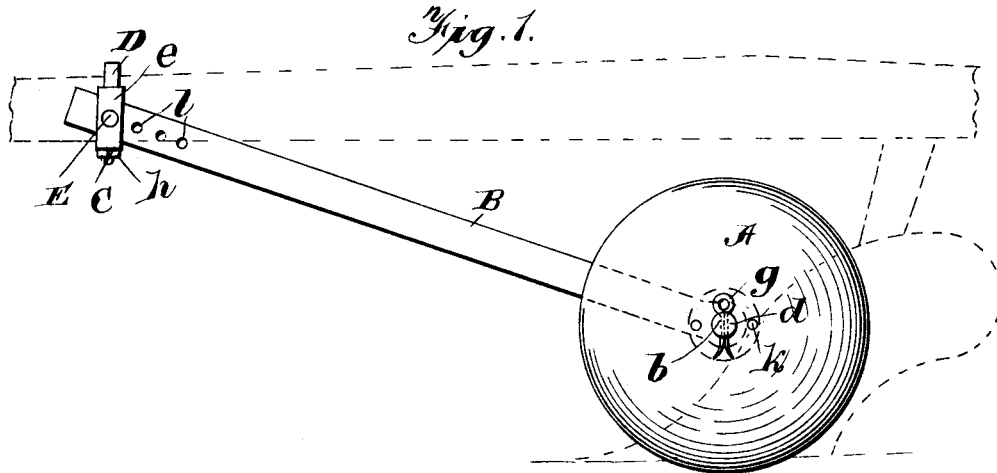
No. 675,998.

Patented June 11, 1901.

W. H. HARPER.  
ROTARY DISK FENDER.

(Application filed May 25, 1900.)

(No Model.)



Witnesses

*Geo. C. French.*  
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By

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# UNITED STATES PATENT OFFICE.

WILLIAM H. HARPER, OF KINGSTON, GEORGIA.

## ROTARY-DISK FENDER.

SPECIFICATION forming part of Letters Patent No. 675,998, dated June 11, 1901.

Application filed May 25, 1900. Serial No. 18,017. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. HARPER, a citizen of the United States, residing at Kingston, in the county of Bartow and State of Georgia, have invented new and useful Improvements in Rotary-Disk Siders, of which the following is a specification.

My invention relates to improvements in rotary-disk siders, and pertains more particularly to that class known in the art as "rotary fenders."

One object of my invention is to provide a fender which is adapted to be attached to either side of the beam and pivotally connected thereto, so that the disk will have a vertical movement.

Another object of my invention is to provide a fender which is adapted to be adjusted to or from the beam without throwing the revolving member out of a parallel line with the plow-beam.

A still further object of my invention is to provide a rotary fender which can be readily attached or detached, so that the concaved or convexed side thereof may be placed adjacent the plow-point.

In the accompanying drawings, Figure 1 is a side view of my invention, showing the plow in dotted lines. Fig. 2 is a top plan view of Fig. 1, showing the beam in dotted lines. Fig. 3 is a side view looking from the opposite side to Fig. 1. Fig. 4 is a detached end view of the clip for securing the device to the plow-beam. Fig. 5 is a bottom view of Fig. 4.

Referring now to the drawings, A represents a dish-shaped rotary fender having on the inner concaved face a hub *c*, which is secured by means of bolts *k*, said hub *c* extending out beyond the line of the outer periphery *j*. The lower end of the arm B is provided with an axle or spindle *b*, extending at right angles thereto and adapted to receive the disk with either the concaved or convexed surface adjacent thereto and of a length greater than the combined thickness of the disk and hub. The outer end of the axle or spindle is provided with a transverse opening *d*, which is adapted to receive a split pin *g*, whereby the disk is held on the axle in either position with the concaved or convexed portion adjacent the beam. The upper end

of the arm B is also provided with a series of openings *l*, by means of which it is pivotally connected to the clip which is secured to the plow-beam.

The before-mentioned clip consists of a transverse plate C, which has at its extreme outer ends an upwardly-extending portion *e* and the downwardly-extending portion *f*, which forms an inverted-U-shaped loop, in which the arm is pivoted. The said portions *e* and *f* are provided with transverse openings registering with each other and between which the upper end of the arm B passes. A bolt E passes through the two portions *e* and *f* and one of the openings *l* in the upper end of the arm B, by which construction it will be readily seen that the arm B will have a vertical movement, so that the fender will at all times be on the ground whether the ground is uneven or not. The lower plate C is also provided with a series of openings *k*, which are adapted to receive the lower portion *i* of the inverted-U-shaped clip D. The lower portions *i* of the clip D are screw-threaded and adapted to receive nuts *h*, which firmly secure the device to the plow-beam.

It will be readily seen that by having the plate C carrying a socket on both ends the fender can be applied to either side of the plow, as desired, or two fenders may be used.

When it is desired to adjust the fender to or from the plow-point, the nuts *h* are removed and the lower portions *i* of the clip D are inserted in another series of openings in the plate C and the nuts are again applied and firmly screwed against the plate C and securely holding it.

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

1. The combination with a plow-beam, of a horizontal plate secured thereto, loops carried by either end of said plate, a fender, an arm carried by said fender and means for pivotally and detachably securing said arm in either loop, substantially as described.

2. A device of the character described, comprising a horizontal plate having a series of openings, vertically-extending inverted-U-shaped loops carried by each end of said plate, a fender-arm entering one of said loops, a bolt passing through said arm and loop, an

inverted-U-shaped clip adapted to receive the plow-beam, and having its ends passing through the openings in the plate, and clamping-nuts adapted to receive said ends on the  
5 outside of the plate, substantially as described.

3. The combination with a plow-beam, of a horizontal plate transversely adjustable on said beam, inverted-U-shaped loops carried  
10 by either end of said plate, a fender-arm adapted to enter one of said loops and means for pivotally and detachably securing said arm in either loop, substantially as described.

4. The combination with a plow-beam, of a plate horizontally adjustable on said beam 15 and means carried by either end of said plate for detachably securing a fender-arm, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 20 two subscribing witnesses.

W. H. HARPER. [L. S.]

Witnesses:

J. N. MCKELVEY,  
A. Y. SHEATS.