

UNITED STATES PATENT OFFICE.

WILLIAM H. MELLON, OF FERN VALLEY, IOWA.

IMPROVEMENT IN ROTARY CUTTER AND SHIELD FOR PLOWS.

Specification forming part of Letters Patent No. **196,160**, dated October 16, 1877; application filed July 13, 1877.

To all whom it may concern:

Be it known that I, WM. H. MELLON, of Fern Valley, in the county of Palo Alto and State of Iowa, have invented a new and useful Improvement in Rotary Cutter and Shield for Plows, of which the following is a specification:

Figure 1 is a side view of a plow-beam to which my improvement has been applied. Fig. 2 is a front view of the same, the plow-beam being shown in cross-section through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved rotary cutter for plows which shall be so constructed that sand cannot get to and wear its journal, which shall be provided with a device for bending down weeds, grass, stubble, &c., so that they will be turned under and fully covered by the furrow-slice, and which shall be simple in construction and convenient and effective in use.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

A represents a plow-beam, to which is secured, by a bow and yoke, B C, and a wedge, D, the upper part of the standard E. The lower part of the standard E is forked, and in the ends of its branches are formed holes to receive the bolt F, that passes through and serves as a journal for the hub of the rotary or circular cutter G.

H are two conical caps, which inclose the hubs of the cutter G. The caps have holes in their outer or smaller ends to receive the bolt or journal F, and the edges of their inner or larger ends rest against the opposite sides of the cutter G.

By this construction the caps H keep the dirt away from the hub of the cutter G, and thus prevent it and its journal from being worn so rapidly.

In one side of the caps G are formed small

holes *h'*, to allow any fine dust that may find its way into said caps to escape.

To the branch of the standard E next the plowed land is hinged the forward end of the shield I, the rear end of which is held down by a spring, J, one end of which is attached to said shield, and its other end is attached to the branch of the standard E. The spring J allows the shield to yield to accommodate itself to uneven ground, and to pass over obstructions. The outer edge of the shield is bent down or flanged to press projecting weeds, grass, &c., down into the furrow, to insure their being covered.

When the cutter G is not needed it may be detached by detaching the bolt F, and the shield used without it.

To the upper end of the standard E is pivoted the forward end of the rod K, the rear end of which is pivoted to the lever L. The lower end of the lever L is pivoted to the rear part of the plow-beam A, in such a position that its upper end may be reached and operated by the plowman to raise the cutter G when it is desired to have the plow enter the ground deeper.

The lever L is provided with a lever spring-pawl, M, the engaging end of which engages with the teeth of a semicircular ratchet, N, attached to the beam A, and along which the lever L moves, to hold the said lever in any position into which it may be adjusted.

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

The combination, with colter-wheel G, of the bent plate I, pivoted in front to standard E, and provided with spring J to press its rear, all constructed, arranged, and operating together as and for the purpose specified.

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Witnesses:

J. S. ATKINSON,
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