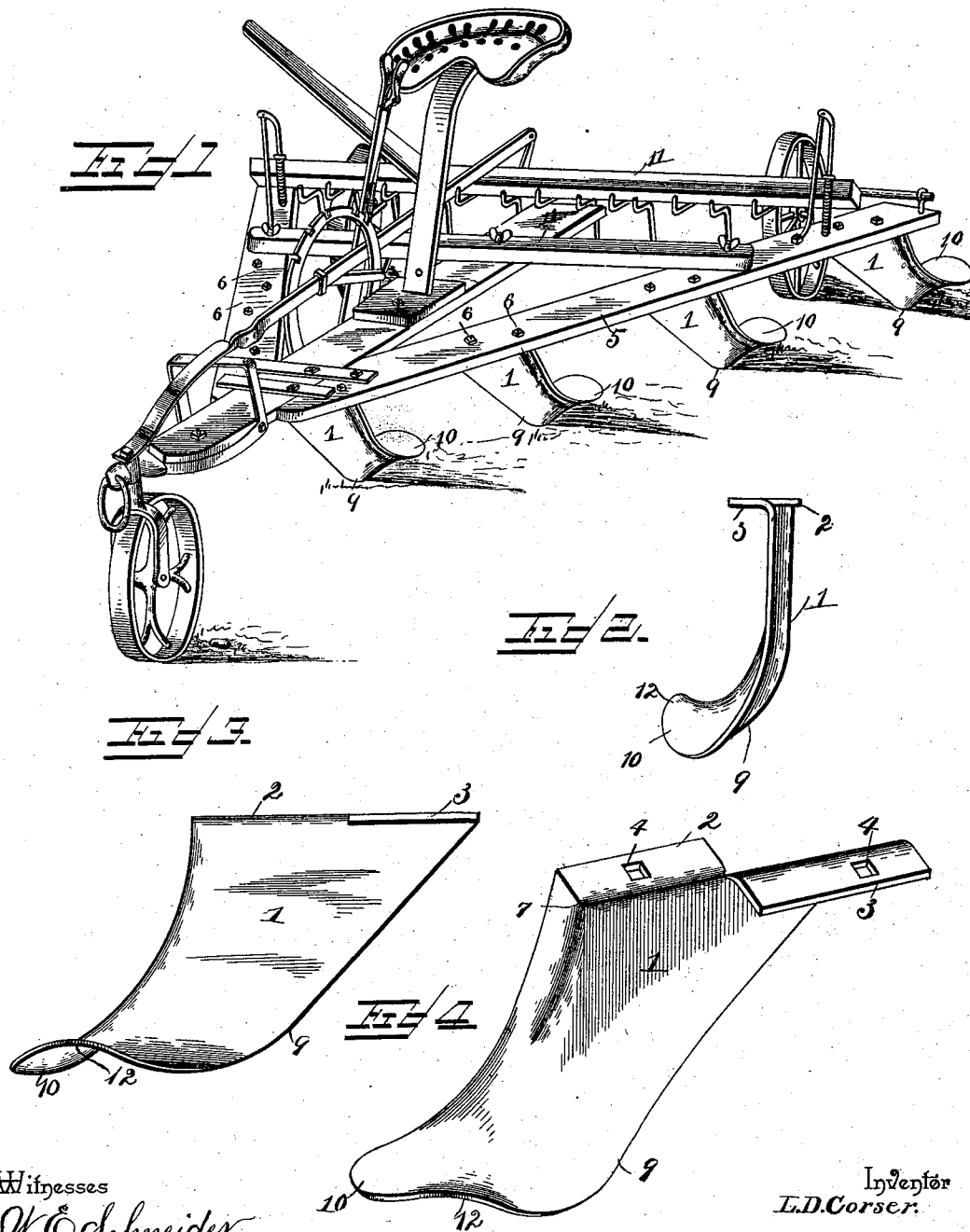


(No Model.)

L. D. CORSER.  
HARROW TOOTH.

No. 504,444.

Patented Sept. 5, 1893.



Witnesses

W. E. Schneider.

Inventör

*L.D. Corser.*

By his Attorneys,

*E. E. Ryfe.*

Cashnow Co.

# UNITED STATES PATENT OFFICE.

LORENZO D. CORSER, OF EBENSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO VALENTINE S. BARKER, OF SAME PLACE.

## HARROW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 504,444, dated September 5, 1893.

Application filed August 29, 1892. Serial No. 444,403. (No model.)

*To all whom it may concern:*

Be it known that I, LORENZO D. CORSER, a citizen of the United States, residing at Ebensburg, in the county of Cambria and State of Pennsylvania, have invented a new and useful Harrow-Blade, of which the following is a specification.

My invention relates to harrows, and more particularly to the construction of that class of teeth thereof known as "rigid."

The objects in view are to produce a harrow whose teeth are formed of sheet steel, and are so constructed as to produce an even and thorough pulverization of the soil, thus avoiding the formation of undesirable ridges, and which shall be so formed as to withstand the operation of harrowing and remain rigid during the same.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings—Figure 1 is a perspective view of a harrow embodying my invention. Fig. 2 is a front elevation of the harrow tooth in detail. Fig. 3 is a side elevation of the same. Fig. 4 is a perspective view of the tooth in detail.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I form the entire tooth from a single piece of sheet steel of suitable gage or thickness. The blank from which the tooth is formed has a somewhat triangular shape, and its upper end is split at 1 to form a front and rear flange 3 and 2, respectively. These flanges are bent in opposite directions to each other and at right angles to the blank. Each is provided with a bolt-hole 4, and is bolted to the under side of the harrow beam or bar 5. Bolts 6 pass through the bolt-holes and through the beams or bars of the harrows. The rear upper edge of the blank is bent laterally, and is welded at its upper end to the rear end of the laterally securing flange 2, thus forming a rear convex edge 7. It will be seen that the widest portion of the tooth is the upper end, said tooth being gradually reduced at its front

edge from its upper toward its lower end. The lower end is curved laterally and rounded at its lower edge to form a cutting edge 9 and to produce a concaved face at the land side of the tooth. This shape of the tooth produces a round nose 10 at the rear thereof, and between the points 9 and 10 the laterally curved part of the tooth is slightly upwardly curved or convexed as at 12, so as to render said nose of a concavo-convex shape.

Any construction of harrow-frame may be provided with my improved teeth, but in the present instance I have shown one simple form of frame in which, as before stated, the bars are numbered 5. These bars form a triangle and are connected by transverse braces or beams 11.

The soil, as the teeth pass therethrough, is raised and passed over the concaved land side and convexed nose of the tooth and is guided by the rounded concaved mold-board side thereof off the round or curved rear edge of the tooth. The tooth, it will be understood, lifts the dirt, as it were, and as the dirt comes in contact with the rear portion of the blade the curve so changes the course of the dirt that it falls over the rear round edge thereof, thereby relieving the teeth of the pressure of the dirt, allowing the dirt to become better pulverized, and preventing the formation of beds. By widening the upper end of the tooth the rear edge serves as a brace and enables the tooth thus made of sheet metal to withstand the severe strain to which it is subjected.

Having thus described my invention, what I claim is—

1. The herein described harrow-tooth, the same formed of sheet-metal and substantially triangular in shape, the upper end of the tooth being laterally bent to form a securing-flange, and one edge of the blank laterally bent to form a stiffening-flange, whose upper end is secured to the adjacent end of the securing-flange, substantially as specified.

2. The herein described improved harrow-tooth, the same being triangular, and having its upper end bent to form a securing-flange, and one edge bent to form a stiffening-flange,

the upper end of the latter flange being welded to the adjacent end of the former flange, said tooth having its lower portion laterally and rearwardly curved and rounded to form  
5 a rear concaved moldboard, the same having a central convexed nose, substantially as specified.

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

LORENZO D. CORSER.

Witnesses:

V. S. BARKER,  
H. H. MYERS.