C. E. ESTES.

Cotton Wing-Sweep.

No. 217,597. Patented July 15, 1879.

Fig: 1.

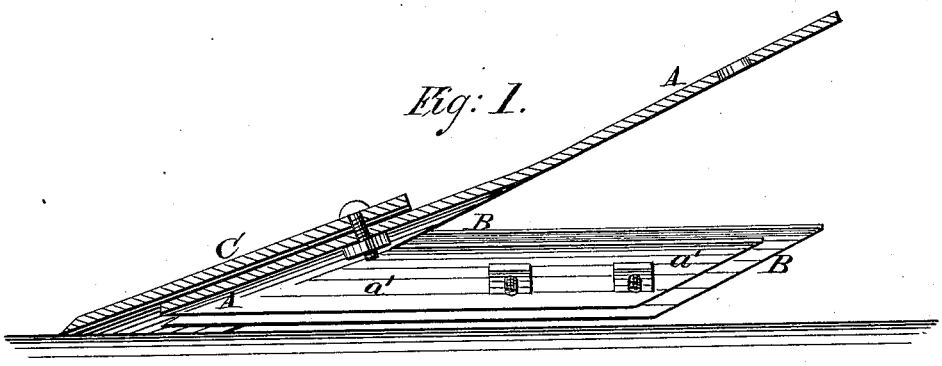
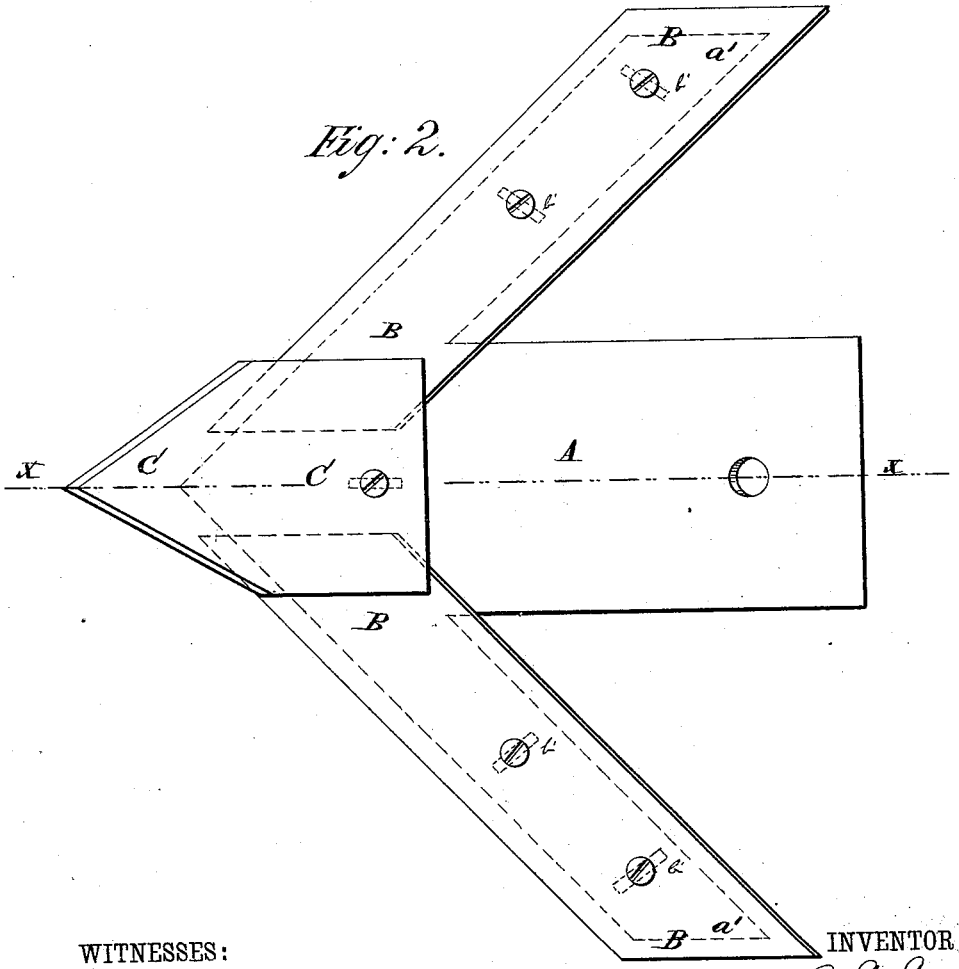


Fig: 2.



WITNESSES:

Achilles Schehl.

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UNITED STATES PATENT OFFICE.

CHARLES E. ESTES, OF COLUMBUS, GEORGIA.

IMPROVEMENT IN COTTON WING-SWEEPS.

Specification forming part of Letters Patent No. **217,597**, dated July 15, 1879; application filed May 13, 1879.

To all whom it may concern:

Be it known that I, CHARLES E. ESTES, of Columbus, in the county of Muscogee and State of Georgia, have invented a new and useful Improvement in Cotton Wing-Sweeps, of which the following is a specification.

Figure 1 is a vertical longitudinal section of my improved sweep, taken through the line *x x*, Fig. 2. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved sweep for cultivating cotton, which shall be so constructed that the parts subject to wear may be readily ground to keep them sharp, may be readily reversed and exchanged when one edge becomes worn or notched, which may be moved down to take up the wear, and may be replaced with new ones when worn out at small expense, and which will leave the ground level and smooth.

The invention consists in an improved sweep formed by the combination of the standard provided with the narrow wings, the narrow slotted blades, and the narrow point with each other, the blades being clamped between the wings and point, as hereinafter fully described.

A represents the standard of the sweep, which is secured to the ordinary plow-stock by a heel pin or bolt in the manner of a shovel-plow.

Upon the side edges of the forward part of the standard A are formed wings *a'*, which have holes formed through their outer parts to receive the bolts, by which the wings or plates B are secured to them. The blades or wings B are made in the shape of oblique-angled parallelograms or rhomboids, as shown in Fig. 2, so that the soil may pass over them evenly, and may be left flat and smooth.

The inner ends of the blades B are inserted beneath the narrow point C, and are clamped between the said point C and the standard A by tightening up the bolt that secures the said point to the said standard. This construction allows the blades B and point C to be made thin, so that they can be readily ground and thus kept sharp.

The blades B are slotted transversely to receive the bolts, by which they are secured in place, so that they may be moved down to take up the wear. With this construction the blades B can be readily exchanged when their lower edges or outer corners become worn, and the blades B and point C can be readily replaced with new ones when worn out.

By the substitution of a triangular-shaped blade for the obtuse-angled parallelogram blades B, secured in the same manner and by the same bolts, the plow, without extra cost, except the cost of the triangular blades, is converted, to all intents and purposes, into a solid sweep for rolling the soil toward the cotton instead of flat culture.

Both operations are useful for the different circumstances of cotton-culture, and my improvements upon the wing-sweep are thus made applicable to every condition of cotton-culture.

I am aware that the wings of cotton-sweeps have been made reversible and detachably secured to their standards; but

What I claim, and desire to secure by Letters Patent, is—

The combination of the standard A, having wings *a'* and point C, with the thin narrow blades B, provided with transverse slots *b'*, and bolted to the wings, so that their forward ends will be clamped between the said wings and the point, substantially as shown and described.

CHARLES E. ESTES.

Witnesses:
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R. M. MULSON.