F. E. RICHARDSON.

Shovel Plow.

No. 9,433. Patented Nov. 30, 1852.

Fig. 4.

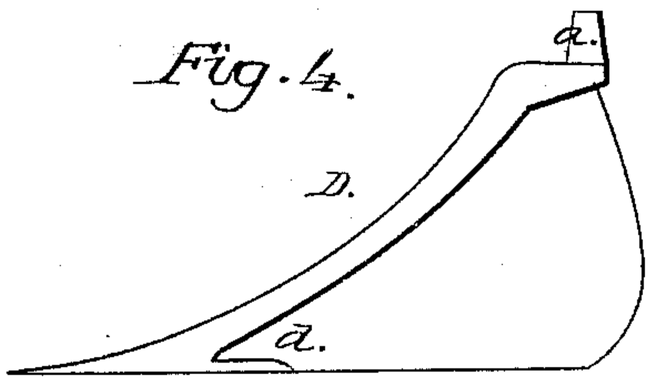


Fig. 1.

Fig. 3.

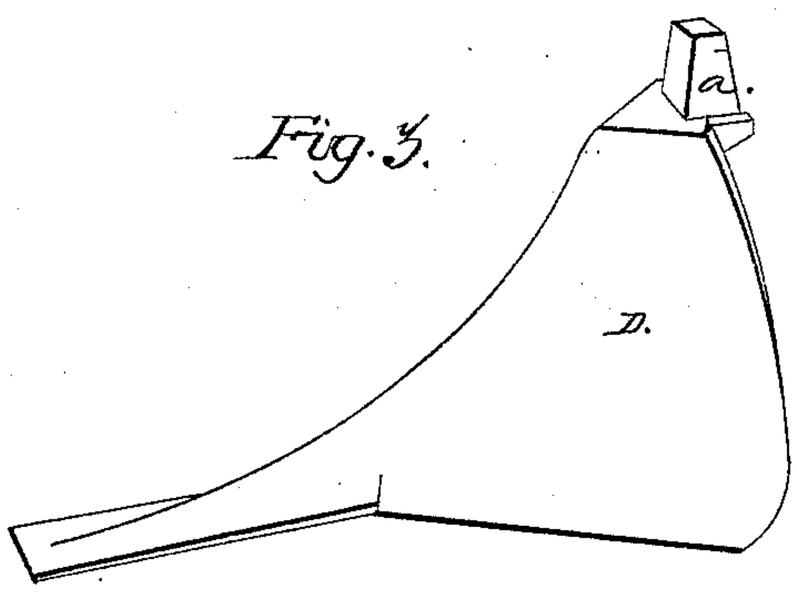


Fig. 2.

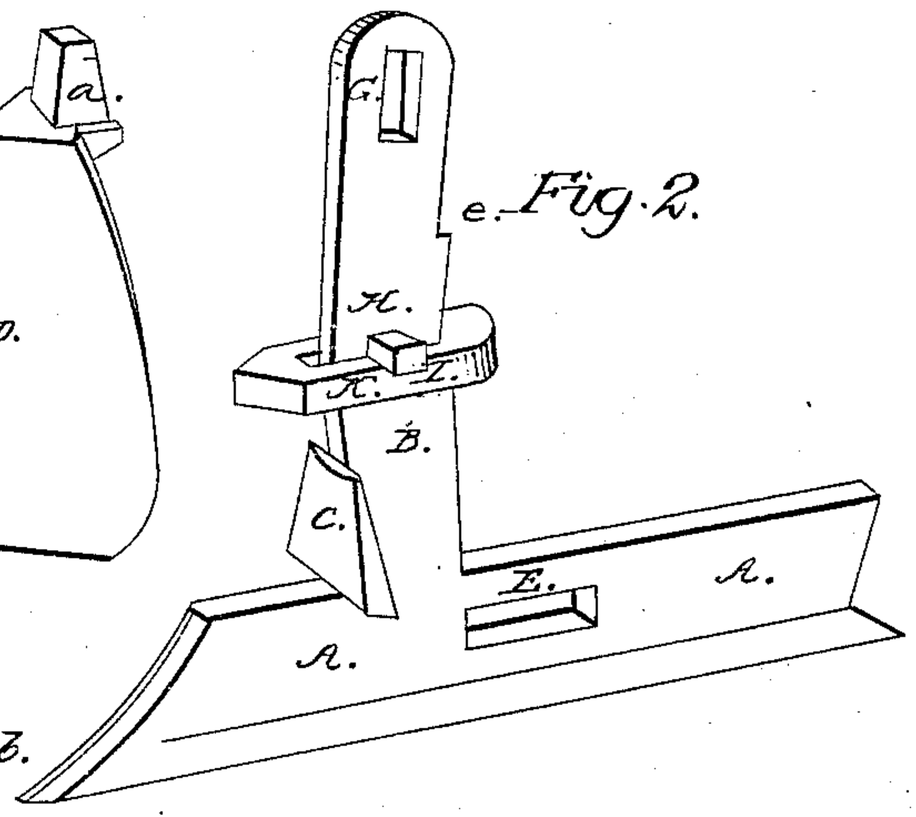
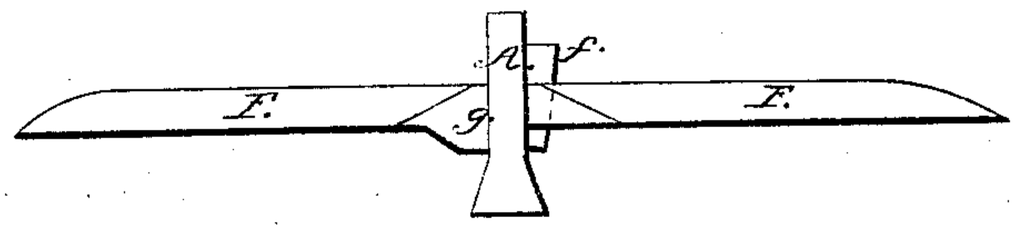


Fig. 5.



UNITED STATES PATENT OFFICE.

FORTUNATUS E. RICHARDSON, OF HICKSFORD, VIRGINIA.

IMPROVEMENT IN THE CONSTRUCTION OF PLOWS.

Specification forming part of Letters Patent No. **9,433,** dated November 30, 1852.

To all whom it may concern:

Be it known that I, FORTUNATUS E. RICHARDSON, of Hicksford, in the county of Greensville and State of Virginia, have invented a new and useful Improvement in the Construction of Plows; and I do hereby declare the following to be a full and clear description thereof, reference being had to the annexed drawings, forming part of this specification.

Figure 1 is a perspective view of the cultivator-plow, the beam and handles being removed. Fig. 2 is a perspective view of the combined sheth and central land-bar and clamp-link. Fig. 3 is a perspective view of the pointed double compound share. Fig. 4 is a vertical central section of Fig. 3. Fig. 5 is a view showing the connection of the triangular or double-winged stirrer with the central land-bar.

The improvement I have made in the plow is intended to supersede the wrought-iron shovel-plow or any other used in cultivating or stirring effectually the earth, and which by the arrangement of the central bar or body of the plow, the form of the pointed double compound share, the wings, and the simplicity by which the several parts are firmly bound together, also the facility by which parts worn away may be replaced by others.

This improved plow also offers the advantage of a marking or checking plow in corn-planting, or slightly opening the earth by removing the wings passing through the center bar, as well as a slight hilling-plow when so used without the wings.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A A, Fig. 2, represent the center bar; B, the sheth provided with a shoulder-piece, C, for the support of the double-share point D, Figs. 1 and 3, forming also the mold-boards.

E represents a mortise, through which pass the wings F F; G, the mortise in the sheth above the beam, and by the introduction of a wedge it is secured thereto. H is also a mortise, through which passes a wedge, I, confining the oblong link K, said link K confining the pointed double compound share D to the sheth by passing over a projection, *a*, on the top thereof, while the shoulder-piece C prevents D being crowded down. The point *b* on this center bar, A A, enters a slight cavity, *d*, Fig. 4, preventing the point being forced backward. *e* is a shoulder to support the under edge of the beam.

Fig. 1 is a perspective view of the wings or stirrers, which may be made triangular or semicircular in their plan—a cross-section shown in Fig. 5, where they are represented by F F; *f*, the wedge; *g*, the shoulder on the lower side of one of the wings F, which, by the action of the wedge *f* passing through the opposite wing, clamps it securely to the center bar, A. These wings F F are made sharp on their front edge, having sufficient thickness to prevent breaking in passing horizontally through the earth.

Having described the separate parts of my plow, I would state that the center bar, A, and sheth B and shoulder-piece C are all cast or formed of one piece.

In setting up the plow the clamp-link K is removed after the wedge I has been drawn out of the mortise H, and the pointed double compound share is passed over the point *b* on the center bar, A, and the upper end of said share *a* clamped by the return of the link K and wedge I. The wings are introduced into the mortise E in the center bar, A, and are confined by a shoulder, *g*, and wedge *f* passing on each side of said bar. The mortise G is for the reception of the beam-wedge, as in common use.

In my cultivator-plow there are several parts which are common to plows, or such as have been more or less separately or in connection used by others—the central bar, A, or body of the plow, from which is reared the standard or sheth B, the angular wings or stirrers F F, confined to the central bar, A, the double share or mold-board D. Therefore to these parts no special claim is made, either separately considered or in combination; but

I claim as my improvement—

Mounting the double pointed share D upon the central shoulder-piece, C, and fastening the same by a link-piece, K, as described.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

F. E. RICHARDSON.

Witnesses:

JOHN F. CLARK,

A. E. H. JOHNSON.