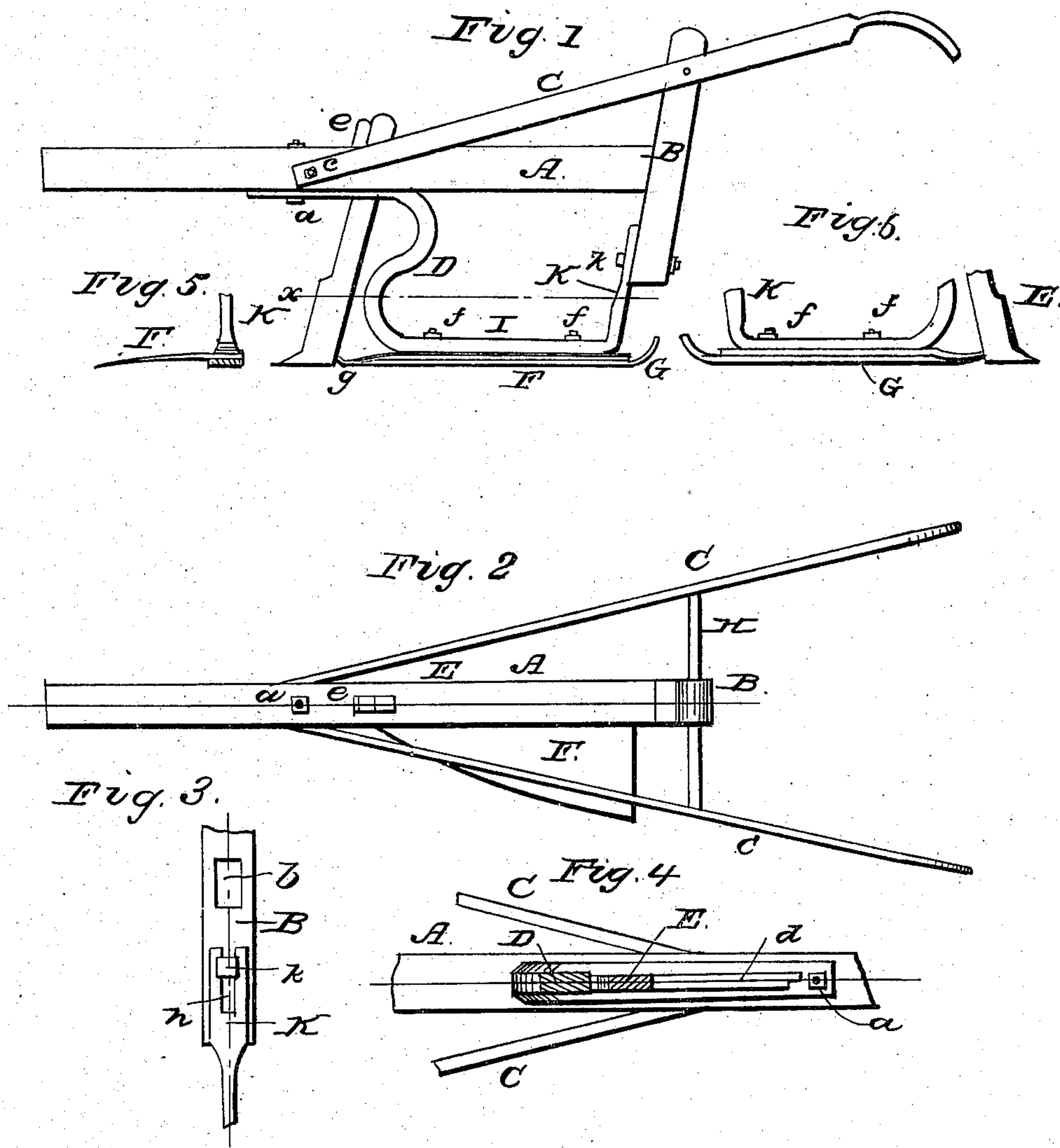


J. CUSTER.  
Subsoil Plow.

No. 83,472.

Patented Oct. 27, 1868.



Witnesses.  
David Hammond  
Edw. J. Seaborn

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# United States Patent Office.

JOHN CUSTER, OF CORSICA, OHIO.

Letters Patent No. 83,472, dated October 27, 1868.

## IMPROVEMENT IN SUBSOIL-PLOWS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN CUSTER, of Corsica, in the county of Morrow, and State of Ohio, have invented new and useful Improvements in Subsoil-Plows; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon, of which drawings—

Figure 1 is an elevation of my improved plow.

Figure 2 is a plan of the same.

Figure 3 is a detail view, showing the manner of attaching the shoe-bar and rear beam.

Figure 4 is a detail view, showing section made by line *x-y* in fig. 1, and showing the manner of attaching the share-bar and plow-beam.

Figure 5 is an end view of the share-bar, share, and share-shoe.

Figure 6 is an elevation of the same, showing the opposite side from that shown in fig. 1.

The nature of my invention consists in the novel mode of constructing and combining the several parts of a subsoil-plow, in such a manner as to form a very easily constructed and cheap plow, which can be made by any ordinary mechanic, and which is very strong and durable, and easy to keep sharpened, and, if broken, is easily repaired.

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

A is the plow-beam, which is tenoned, at the end, into the mortise *b*, in the beam B, where it is secured by a pin, or in any other suitable manner.

The handles C C are secured to the plow-beam A by the bolt *c*, as shown, and are connected and braced, near their upper ends, by the cross-bar H, which passes through the rear beam, B, and is secured, at the ends, in the handles C C, as shown.

The share-bar D I K is made in the form shown, the flattened part of the end, D, being secured to the plow-beam A by one or more bolts, *a*, as shown, while the end, K, is secured to the lower end of the rear beam, B, by means of the bolt *k*, which passes through the slot *h* in the part K of the share-bar, and through the end of the beam B, as seen in figs. 1 and 3.

A slot, *d*, is made in the flattened part of the end, D, of the share-bar, as seen in fig. 4, through which passes the cutter E, which passes up through a slot cut in the plow-beam A, where it is secured by a wedge-piece, *e*, as shown in figs. 1 and 2.

The share F is of the form shown, and has the share-shoe G arranged on its land and lower side.

The share and shoe have a common point, *g*, and are welded together at said joint, as shown.

They are firmly secured together, and to the share-bar D I K, by means of the bolts *f f*, as shown.

The point *g* of the share and shoe rests in a hole in the rear and lower part of the cutter E, as shown, thereby protecting said point, and bracing the lower end of the cutter.

The advantages arising from this mode of construction are—

First, that it allows of the wood and iron work being constructed separate and apart from each other, and without that exactness that is only attainable with perfect machinery, as the long slot *d* will allow a movement of the flattened part of the part D of the shoe-bar along the lower face of the plow-beam, so that the part K may be brought to coincide with the rear beam, B, without interfering with the mortise for the cutter E in the plow-beam A, (the hole in the beam A, for the bolt *a*, being bored after the share-bar is in position,) while the slot *h* in the part K allows this end of the share-bar to be so adjusted on the rear beam, B, as to insure a perfect fitting of the flattened portion of the part D to the plow-beam A.

Also, that it makes the plow very easy to keep in repair, as the cutter E can be taken off and sharpened by simply removing the wedge *e*, while the share F can be removed, for sharpening, or for any other purpose, by simply taking out the bolts *f f*.

Having thus fully described my invention, I do not claim as new, or as my invention, the share F, or share-shoe G, either separately or combined; but

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

1. The share-bar D I K, with slots *d* and *h*, when constructed and used in combination with the plow-beam A and rear beam, B, substantially as and for the purpose herein specified.

2. The peculiar arrangement and combination of the share and shoe F G, bolts *f f*, and share-bar D I K, the several parts being arranged substantially as and for the purpose specified.

3. The peculiar arrangement and combination of the share and shoe F G with common point *g*, the cutter E, share-bar D I K, and plow-beam A, the several parts being arranged substantially as and for the purpose specified.

As evidence that I claim the foregoing, I have hereto set my hand in presence of two witnesses.

Witnesses:

JOHN CUSTER.

MARY J. CRISPIN,  
STEPHEN CRISPIN.