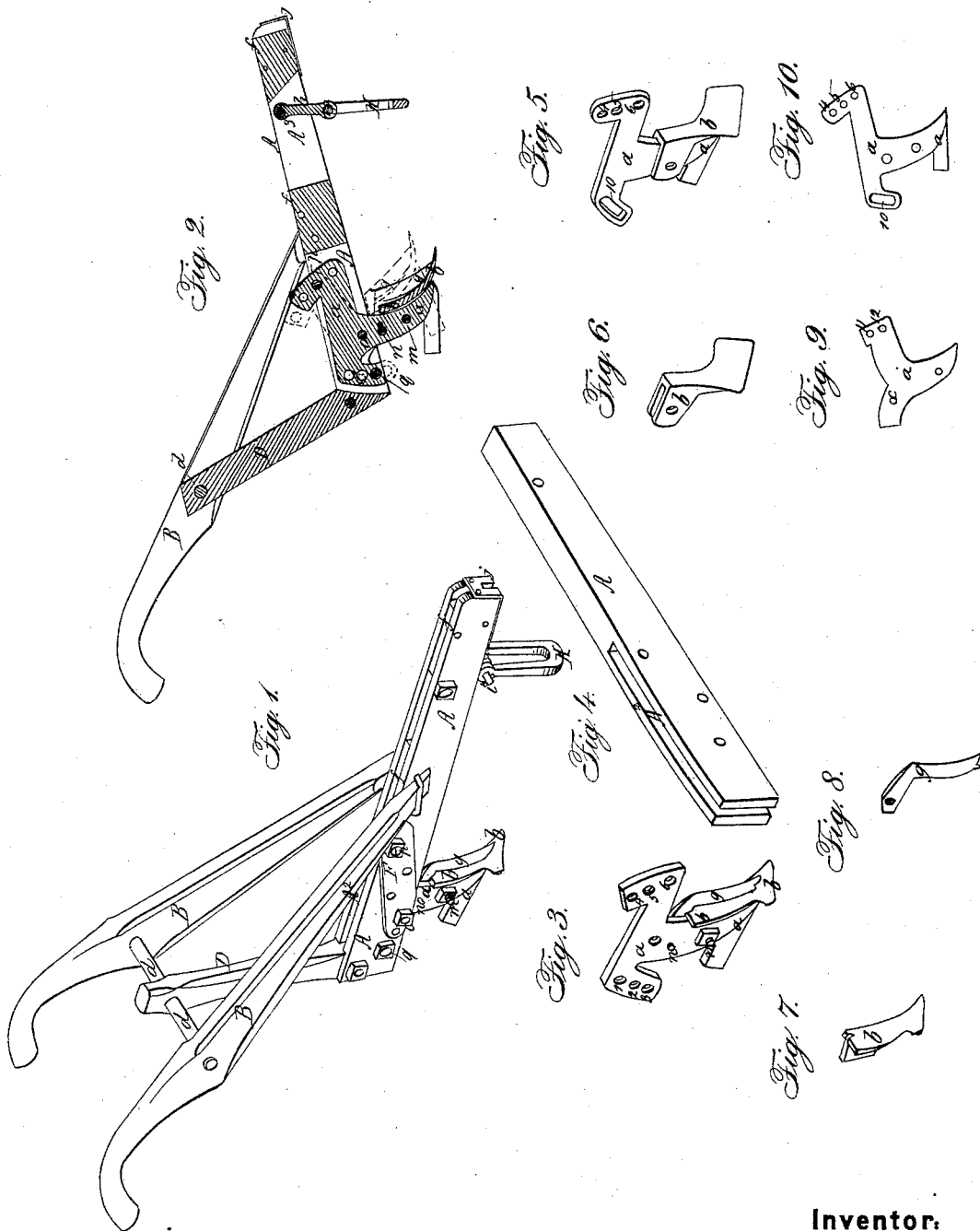


J. S. HUGGINS.

Shovel-Plow.

No. 28.372.

Patented May 22, 1860.



Witnesses:

*Wm. C. Little*  
*Levin C. Ketchum*

Inventor.

*J. S. Huggins*  
*By his Attorney*  
*J. W. C. Little*

# UNITED STATES PATENT OFFICE.

JOHN S. HUGGINS, OF TIMMONSVILLE, SOUTH CAROLINA.

## IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 28,372, dated May 22, 1860.

*To all whom it may concern:*

Be it known that I, J. S. HUGGINS, of Timmons ville, county of Darlington, in the State of South Carolina, have invented certain new and useful Improvements in Plows; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in certain new and useful improvements in plows, as hereinafter fully described.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation, referring by letters to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a plow embracing my several improvements. Fig. 2 is a vertical longitudinal section through the center of the same. Fig. 3 is a perspective view of the helve and shares detached. Fig. 4 is a detail perspective of a modification of the beam. Fig. 5 is a perspective view of helve and modification of share. Fig. 6 is a perspective of share in Fig. 5. Fig. 7 is a detached view of share seen at Figs. 1 and 3. Fig. 8 is a detail view of sword; and Figs. 9 and 10 are perspective views, showing modifications of helve.

In the different views the same part of the apparatus is indicated by the same letter.

A is the beam, B are the handles, D is the standard, and *d* the cross-rung, of the plow. *a* is the helve. *b* is the share. *g* is the sword. *m* and *n* are bolts by which the share *b* and sword *g* are secured to the helve *a*. H is the clevis, and *h* is a link, to which it is coupled by a pin, *i*, said link being pivoted in the beam, as shown at Figs. 1 and 2.

The beam A, I construct of two boards, similar in size and shape with blocks *f f*, arranged between them, and the whole secured together, as illustrated, with bolts, and with the standard D bolted in at the rear end, or an equivalent of this beam may be made by taking a solid beam and slotting out from the rear toward the front, as shown at A<sup>2</sup>, Fig. 4.

In the slot A<sup>2</sup> is hung the helve *a* on a pivot, *o*, (see Figs. 1 and 2,) on which it can turn when not otherwise held to the beam. The

shape of helve *a* will be understood from Fig. 3, where it will be seen that said helve has formed in each of its bent ends holes 1 2 3 and 4 5 6, while through any one of each series a bolt, *p*, and another, *q*, passes through the beam, secured by nuts. The object of the series of holes in the bent ends of the helve *a* is to allow said helve to be turned or adjusted on the pivot *o* to any desired angle with the beam and there held by means of bolts *p* and *q*.

F are plates of metal, secured on each side of beam A, to receive the bearing of nuts and heads of bolts *p* and *q* (which would wear the wood away) and also to strengthen the beam A.

It will be seen that by adjusting the helve *a* the angle of the share with the beam may be varied at pleasure to suit the plow to the circumstances under which it may be operating, and also to admit of the employment of different kinds of shares on the same stock.

Instead of forming the helve as shown at Figs. 1, 2, 3, it may be formed, as seen at Figs. 5 and 10, with holes 4 5 6 at one end and a slot, 10, at the other end, or it may be formed with only a hole, *x*, to turn on pin *o*, and holes 11 12 at one end, as seen at Fig. 10.

The adjustment of the helve and its attachments is clearly illustrated by red lines at Fig. 2. The helve is formed with holes to accommodate the bolts *m n*, which respectively secure to it the share *b* and sword *g*; and it will be understood that by thus combining the share and the sword with the helve either the share or sword, or both, may be removed to attach others of different form and for different kinds of work, as shown, for an instance, at Fig. 5. The clevis H, by being coupled by the pin *i* to link *h*, pivoted to beam A, as shown, is caused to pull from the lower surface of the beam A, and when the chain is attached it draws forward and up into the notch in forward lower corner of the metallic shoe *j*, which retains it laterally and also strengthens the forward end of the beam.

The sword *g* is made of iron with a steel edge properly tempered and ground to a cutting-edge, and is of the greatest utility in plowing up through roots and other like obstacles, where it will cut the way easily and with but little strain on the horses.

Having described the construction and op-

eration of the several parts of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The adjustable helve *a*, in combination with the slotted beam *A* and the removable shares, the whole constructed and operating as specified, for the purposes hereinbefore set forth.

2. The removable sword *g*, in combination with the adjustable helve *a* and removable

shares, the whole arranged and operating as specified, for the purpose set forth.

In testimony whereof I hereunto set my hand and affix my seal this 22d day of December, 1860.

JOHN S. HUGGINS. [L. S.]

Witnesses:

D. J. W. SANBURY,  
JOHN SCARP.