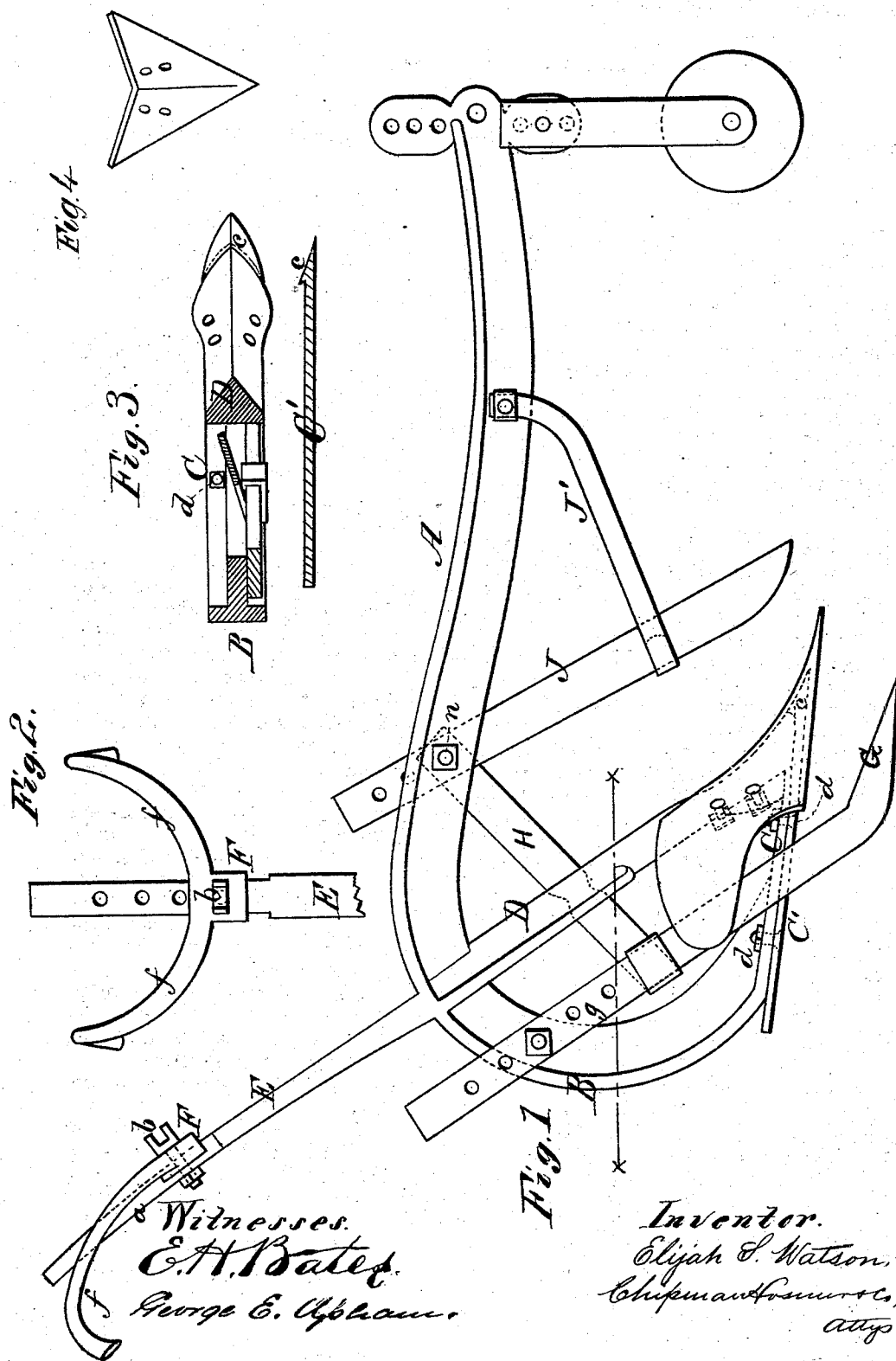


E. S. WATSON.

Plows.

No. 154,106.

Patented Aug. 11, 1874.



Witnesses.
E. H. Bates.
George E. Upham.

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UNITED STATES PATENT OFFICE.

ELIJAH S. WATSON, OF ST. LOUIS, MISSOURI, ASSIGNOR OF THREE-FOURTHS
HIS RIGHT TO H. L. DUNCAN, C. MONTGOMERY, AND J. M. ALLEN, OF
WATER VALLEY, MISSISSIPPI.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **154,106**, dated August 11, 1874; application filed
January 17, 1874.

To all whom it may concern:

Be it known that I, ELIJAH S. WATSON, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and valuable Improvement in Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my plow. Figs. 2, 3, and 4 are detail views of the same.

This invention has relation to the construction of plow-frames of metal, wherein it is desired to obtain great strength, and at the same time lightness and compactness, and a susceptibility for the attachment of one or several cultivating implements, as will be hereinafter explained.

The following is a description of my invention: In the annexed drawings, A designates the plow-beam, which terminates posteriorly in a stock or standard, B, having the form of a semicircle. The lower end of this standard B is connected by a sole-bar, C, to a diagonal brace, D, which extends upwardly and backwardly to the stock B, to which it is rigidly fixed. Above and in line with this brace D is a stilt, E, the upper portion of which is beveled at *a a*, and perforated with several holes, one above the other. F designates a dovetailed slide, which is applied to the upper beveled portion of the stilt E, and which is adjustable up and down thereon, and fixable by means of a screw, *b*, at any desired height convenient for the plowman. This slide has cast or otherwise formed on or applied to it two horn-shaped handles, *f f*, by which the plowman manipulates the implement. The beam A, the curved stock or standard B, the sole-bar C, and the diagonal brace D, together with the handle or stilt E, are cast entire of T-iron—that is to say, iron which in cross-section is the shape of the capital letter T. The sole bar is flat on its bottom and has secured thereto a sole-plate, C', which may be made of hardened steel. This plate C' has a shoe, *c*, formed on its front end, into the rear portion of which the front end of the sole-bar

is received, as shown by dotted lines, Fig. 3. Bolts and nuts *d d* are used for securing the plate C' to the sole-bar C, by removing which bolts and nuts the plate C' can be detached and a new one substituted.

My object is, as before stated, to give great strength to the stock. This I do, as it will be seen, by means of the diagonal or backwardly-inclined brace D, which I consider a great improvement in the class of plows herein referred to. By constructing the plow-beam and the stock or standard of T-shaped material I obtain great strength, both as regards lateral and longitudinal strain. At the same time a light plow is obtained.

The sole-plate shoe *c* is beveled on its upper surface, as shown in Fig. 3, which corresponds to the double-beveled surfaces of the brace D; and the lower end of the brace D is made quite broad, so as to afford a good support to a single or double winged plow, cotton-sweep, or cultivator-blade, which are secured to the brace by means of bolts and nuts, as shown. G represents a subsoiler, which is formed on the lower end of a standard, *g*, which latter is adjustable endwise, and is secured into slots made through the flanges of the stock B and the sole-bar C, and is notched into sole-plate C'. H designates a diagonal brace, which is suitably secured to the standard *g* and to the beam A; and J designates a colter, which is secured at *n* to the beam A by the same bolt which secures the front end of the brace H to this beam. A brace, J', resists any backward strain on the colter. If wrought-iron is preferred in the construction of the beam and stock, I shall use L-shaped iron and secure the flat sides together.

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

The plow-beam A, stock B, diagonal brace D, sole-bar C, and stilt E, all constructed in one piece, as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ELIJAH S. WATSON.

Witnesses:

A. B. FLY,

A. J. McCONNICO.