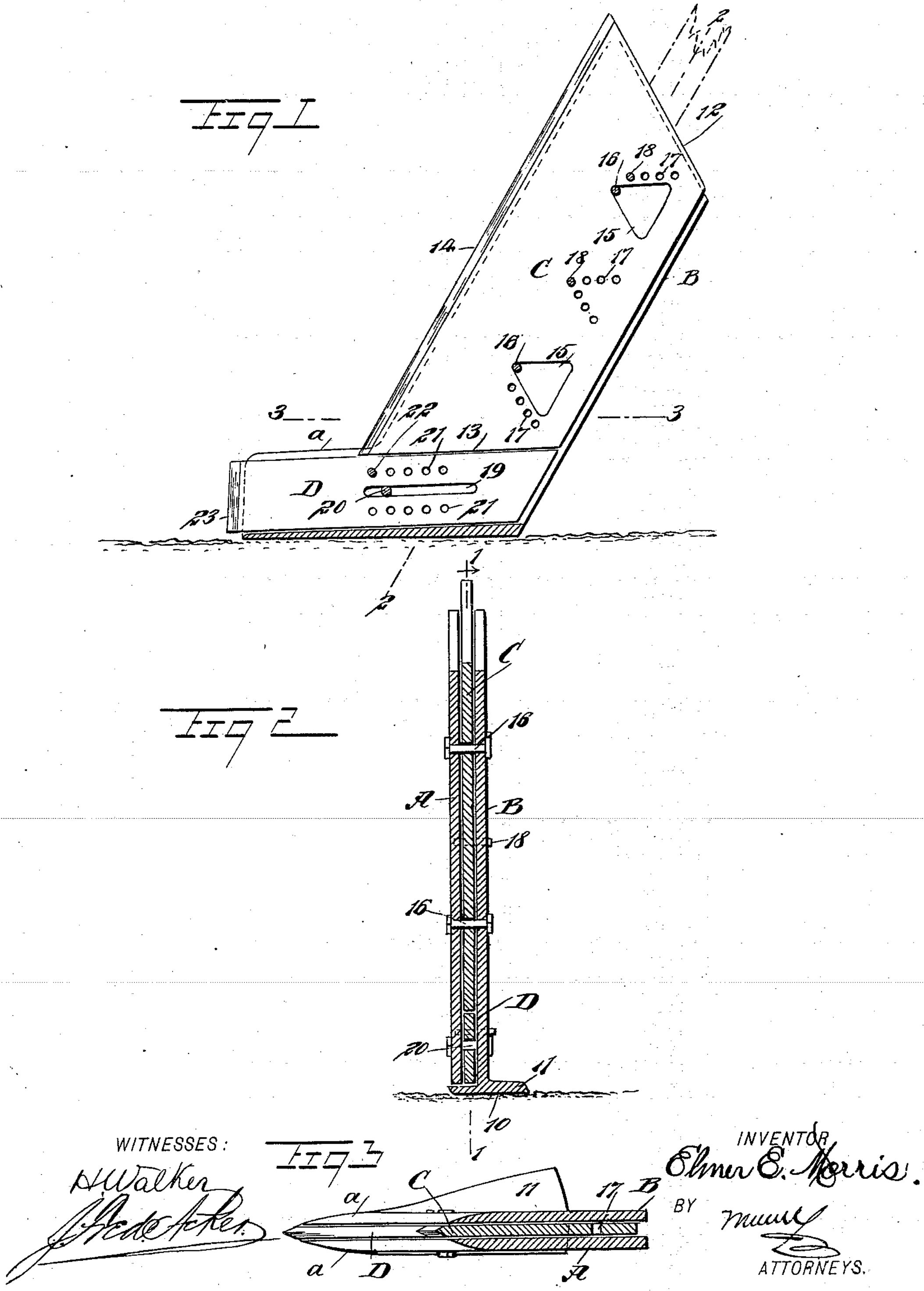
No. 647,859. Patented Apr. 17, 1900.

E. E. MORRIS.

PLOWSHARE.

(Application filed Nov. 20, 1899.)

(No Model.)



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ELMER E. MORRIS, OF SARCOXIE, MISSOURI.

PLOWSHARE.

SPECIFICATION forming part of Letters Patent No. 647,859, dated April 17, 1900.

Application filed November 20, 1899. Serial No. 737,621. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. MORRIS, a citizen of the United States, residing at Sarcoxie, in the county of Jasper and State of Missouri, have invented a new and Improved Plowshare, of which the following is a full, clear, and exact description.

The object of my invention is to so construct a plowshare that it will be self-sharpening and so that the cutting edge may be adjusted forwardly and rearwardly and likewise in a vertical direction to a limited extent.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through a plowshare having the improvement applied, the section being taken practically on the line 1 1 of Fig. 2. Fig. 2 is a vertical section taken at right angles to the section shown in Fig. 1, practically on the line 2 2 of Fig. 1; and Fig. 3 is a horizontal section taken substantially on the line 3 3 of Fig. 1.

The improved plowshare consists practically of four parts—namely, two cheek-pieces A and B, each of which cheek-pieces is provided at its bottom with a forward extension *a*, a blade C, located between the upper portions of the cheek-pieces, and a point D, located below the upper blade and between the lower portions of the cheek-pieces and their extensions *a*. The cheek-pieces are given an upward and rearward inclination from their bottom portions, and the cheek-piece B, which is on the furrow side, is provided with a bottom flange 10, forming a horizontal cutting-surface 11, whose outer edge is inclined forwardly in direction of the extension of the cheek-piece B, as shown in Fig. 3, and the said flange extends in direction of the landside of the plow a sufficient distance to constitute a rest for the bottom of the landside cheek-piece A, as shown in Fig. 2.

The blade C, which inclines in the same direction as the upper portions of the cheek-pieces A and B, is provided with a bottom inclined edge 13 and an upper inclined edge 12. The inclination of these upper and lower edges of the blade is about the same; but the direction of the inclination of the upper edge is opposite to the direction of inclination of the lower edge, so that the blade C may be reversed when desired. The forward edge 14 of the blade, which is the cutting edge, extends beyond the forward edge of the cheek-pieces A and B. The blade C is provided with any suitable number of slots 15, and these slots are preferably triangular in shape, as illustrated in Fig. 1, and bolts 16 serve to hold together the cheek-pieces and the bolts pass through the said slots 15. Series of apertures 17 are likewise produced in the blade C, and the upper and central apertures are adapted to receive dowels or pins 18, which are passed through the cheek-piece B and usually into the opposing cheek-piece A, as shown in Fig. 2. Under this arrangement it is obvious that the blade C may be adjusted so as to extend as far as may be desired beyond the forward edge of the cheek-pieces to compensate for any wear to which the cutting edge of the plow may be subjected and may be turned end for end.

The point D is in the form of a plate and is provided with a longitudinal slot 19, through which a bolt 20 is passed, the said bolt extending through the cheek-pieces at their bottom portions. A series of apertures 21 is usually produced in the point D above and below the slot 19, and a dowel or pin 22 is passed through any one of the apertures 21, the said dowel or pin extending from one cheek-piece to the other. The forward edge 23 of the point D is a cutting edge and projects beyond the forward ends of the extensions *a* of the cheek-pieces, as is illustrated in Fig. 1. It will thus be observed that the point may be adjusted lengthwise or vertically to correspond to a similar adjustment of the blade C, the lower edge of which blade rests upon the upper edge of the point D.

Plowshares become dulled by reason of the bottom portion wearing away faster than the upper portion, thus beveling the lower front edge of the plowshare from beneath and causing the plow to tend to draw upward and out of the ground. My improvement in plowshares obviates this difficulty, since when the lower portion becomes unduly worn the parts

may be reversed and the worn portion be brought to the top and the unworn top portion brought to position at the bottom of the share. It will be understood that the plowshare may be attached to a plow-beam or other support in any suitable or approved manner.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A plowshare having an intermediate blade-section provided with a cutting edge and capable of being reversed and also having a forward adjustment, substantially as specified.

2. A plowshare, provided with an intermediate blade and an intermediate point, the cutting edges of which parts extend beyond the body of the share, both the point and the blade being reversible and also having a forward adjustment, substantially as specified.

3. In a plowshare, separable cheek-pieces, a blade adjustably and reversibly mounted between the cheek-pieces, and a point likewise adjustably and reversibly mounted between the said cheek-pieces and upon which the blade has a bearing, substantially as specified.

4. A plowshare comprising two cheek-pieces, each provided at its lower end with a forward extension, a blade arranged between the upper portions of said cheek-pieces and adapted to be reversed endwise and also adjustable forward with relation to the cheek-pieces, and a point arranged between the forward projections of the cheek-pieces, the said point being forwardly adjustable and reversible, substantially as specified.

5. In a plowshare, two cheek-pieces, each provided with a forward projection at the lower end, one of said cheek-pieces having at its lower end an outwardly-extended flange forming a cutter and also having a flange extending in an opposite direction to pass underneath the lower end of the other cheek-piece, a reversible blade supported between the cheek-pieces, and a reversible point supported between the cheek-pieces, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELMER E. MORRIS.

Witnesses:
HENRY B. BOYD,
CLYDE R. WALLAR.