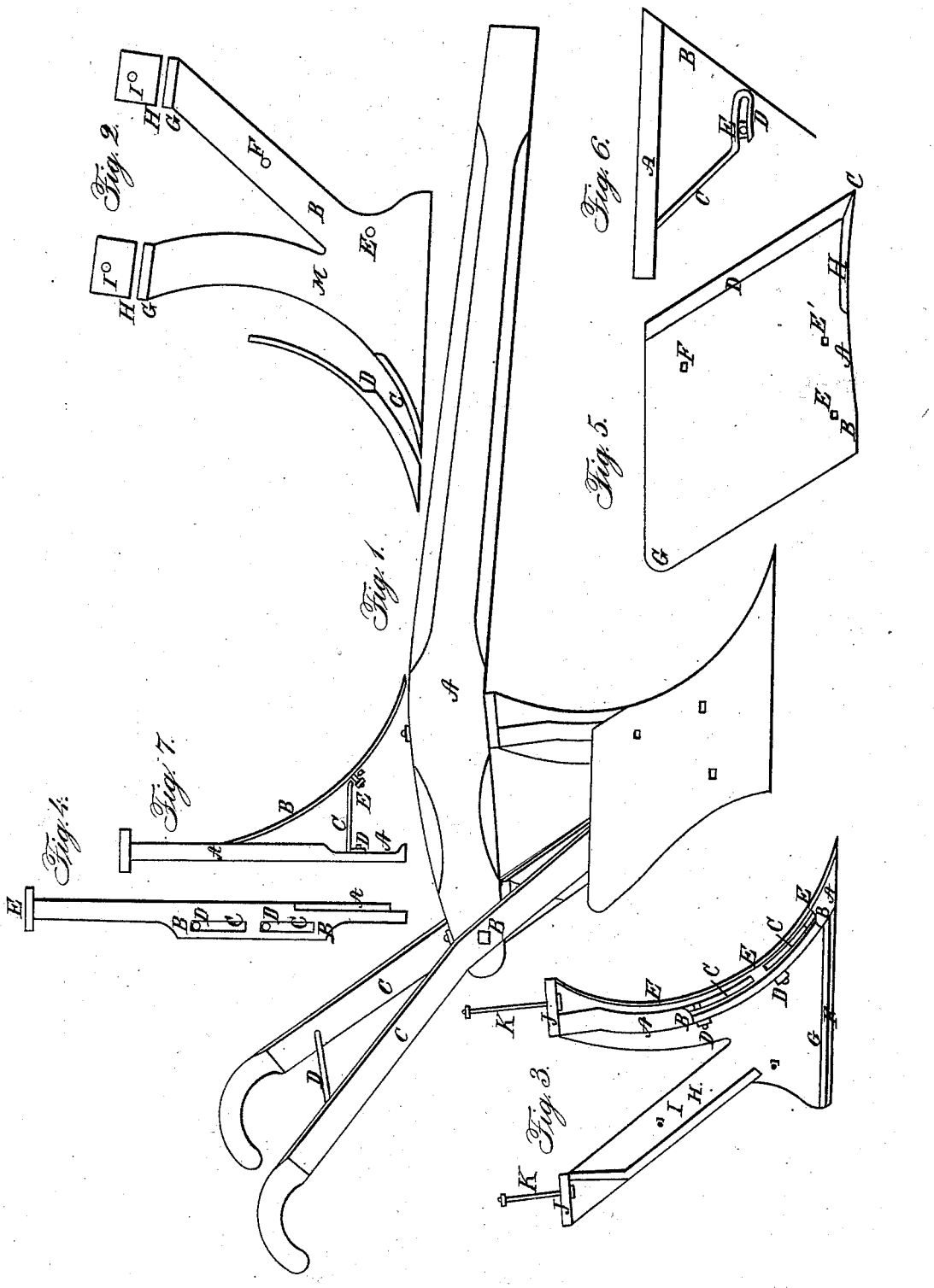
W. BLACK.

Plow.

No. 3,259. Patented Sept. 14, 1843.



UNITED STATES PATENT OFFICE.

WM. BLACK, OF SCOTT COUNTY, ILLINOIS.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **3,259**, dated September 14, 1843.

To all whom it may concern:

Be it known that I, WILLIAM BLACK, of the county of Scott and State of Illinois, have invented a new and useful Improvement in Plows, of which the following is a specification.

In the accompanying drawings, Figure 1 is a perspective view; Fig. 2, a view of the landside from the base to the beam; Fig. 3, a view of the furrow side of Fig. 2 without the wing; Fig. 4, a view of the front edge of the standard on an outstretched line; Fig. 5, the under side of the wing before curved; Fig. 6, the ground plan of the plow; Fig. 7, a sectional view of the back part below the beam.

Fig. 2 is of cast-iron. In this is comprised the bar, (letter *j*,) standard A, and an inclined brace, B, rising from the bar behind the standard A, for the hind end of the beam to rest upon. This brace may be omitted and the landside handle extended to and fastened to the bar in the ordinary way, and the other made fast to it. This piece is half an inch thick, except the addition to the flanges described in Fig. 3. Letter C is a rabbet in the front edge of the standard, for a fillet or flange on the landside edge of the wing to slide in. At D, in front of said standard, is exhibited the said landside edge of the wing, with its fillet to fill said rabbet. E is a hole for a rivet, hereinafter described. F is a hole for a screw-bolt by which the lower ends of the handles are fastened, one on each side of the inclined brace. C C are the edges of caps on the tops of the standard and brace, which caps project over the landside three-fourths of an inch and the furrow side one and three-fourths. H H represent the top surface of said caps; I I, holes through said caps for screw-bolts by which to fasten on the beam.

Fig. 3 is the furrow side of Fig. 2. The light-shade letters A A represent the outer surface of a flange on the standard, which is added for the purpose of strengthening it. From B to B. This flange is enlarged. This enlargement may be made in molding or by riveting on a piece of wrought-iron made to the proper form, for the purpose of allowing room for oblong apertures C C through said flange from front to rear, for the screw-bolts D D to slide in. To fasten on the wing, Fig. 5, these bolts are passed through the holes in it, E E, and those apertures, and nuts screwed on them at the back part of said flange. The shade E E E delineates a bevel on the front edge of the standard and its flange corresponding with the angle of the wing-edge, Fig. 6. F is a flange on the bar; G, a bevel on the top side of said flange; H, a flange on the inclined brace to strengthen it; I I, the holes seen in Fig. 2; J J, the edges of the caps described in Fig. 2; K K, screw-bolts passed through the holes I I in said caps, to fasten on the beam with.

Fig. 4: This section is a front view of the standard on an outstretched line. The dark shade A is the rabbet described in Fig. 2; B B, the enlargement, Fig. 3, of the flange; C C, the apertures through the flange from front to rear, for the screw-bolts D D, Fig. 3; D D, dots showing the ends of those bolts; E, the front edge of the cap on the top of the standard.

Fig. 5 is the under side of the wing before curved, which may be made of one piece of slab-iron cut to a rhomboidal form by the following operation: At A cut the edge of the plate in half an inch deep, strike a curved line from B to C, passing A at the bottom of the cut. The part within the curve from A to B is then cut off, and from A to C turn the edge of the plate so as to form the fillet H, or cut off as from A to B, and weld on a piece of suitable dimensions to form a fillet to fill the rabbet C, Fig. 2. The dark shade D is a bevel bringing the plate to a sharp edge; E E, holes for the bolts D D, Fig. 3; F, a hole for the bolt described below E, Fig. 7. These holes are countersunk at the upper side of the plate in order that the heads of the bolts may be filed down level. The corner H is rounded off. This plate is then bent to a curve corresponding with that of the front of Fig. 3 and ground smooth. Thus, the mold-board and share may be completed of one or two pieces, which, when thus formed, I call the "wing" of the plow.

Fig. 6 is the ground plan of said plow. A is the bar; B, the wing-edge; C, a horizontal brace for the support of the rear part of the wing. It is made fast to the bar by a rivet. (Seen in Fig. 7.) The aperture D in the part next to the wing-edge is for the screw-bolt exhibited at E, Fig. 7, to pass through and slide in. The black spot E is the end of said bolt. The shade on either side of it is part of a screw-nut seen through the aperture.

Fig. 7 is a sectional view of the hind end of the plow. A A represent the end of the bar and the

edge of the inclined brace; B, the back edge of the wing; C, the horizontal brace exhibited at C, Fig. 6; D, the head of a rivet which is passed through a hole in the brace and the hole E, Fig. 2. By this rivet the brace is made fast to the bar. E is the screw-bolt which fastens the brace to the under side of the wing. This bolt passes through the wing at F, Fig. 5, and the aperture D, Fig. 6, only the outer end of the aperture appearing in this.

Fig. 1 is a perspective view of the plow the parts of which have been described above, except the beam and handles. These do not differ in point of form from those of other plows. The beam A is fastened on the caps H H, Fig. 4 by passing the screw-bolts K K, Fig. 3, through perpendicular holes made through the beam for that purpose and screwing on the nuts. B is the end of a screw-bolt, which is passed through both handles C C and the beam to fasten them one on each side of it. The upper ends of the handles are kept at proper distance apart by the round D.

I disclaim every part of the within-described plow as my own invention except that set forth in the following claim.

What I claim as my own invention, and desire to secure by Letters Patent in the within-described plow, is—

Making the mold-board adjustable in the manner and for the purpose described, by which means the wing is made adjustable or susceptible of being slid down on a curved line and made fast at any given point of the whole distance it is allowed to be moved. The purpose designed to be effected is this, that the wing of the plow may be conveniently slid down whenever the wear of the edge may require, in order that the edge may be kept level with the bottom of the bar. The means by which this is effected may be clearly seen, reference being had to the within description and accompanying drawings.

WILLIAM BLACK.

Witnesses:
JOHN BLACK,
ORNSBE HAYNIE.