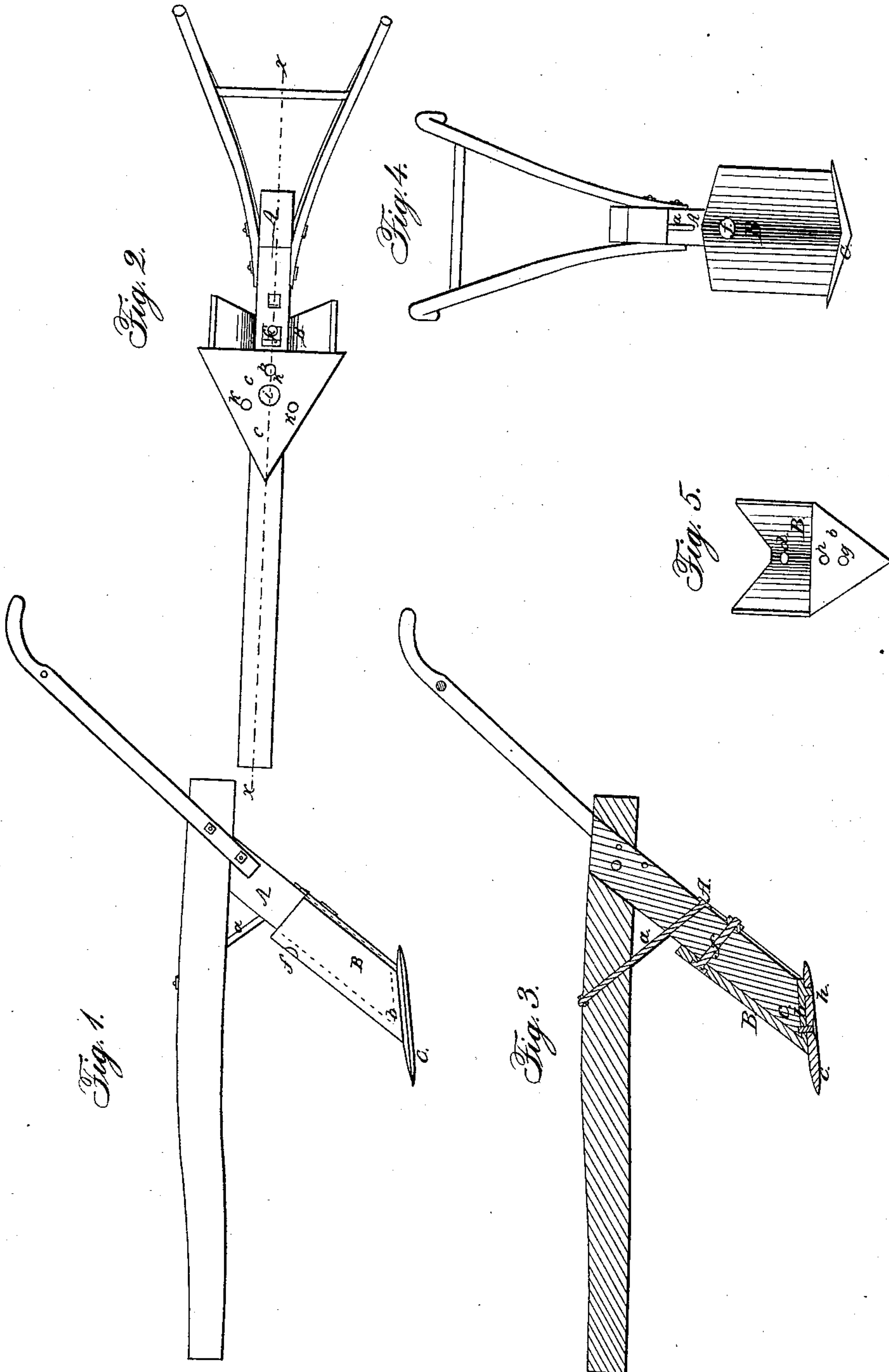


J. P. HARRIS.

Shovel-Plow.

No. 20,790.

Patented July 6, 1858



UNITED STATES PATENT OFFICE.

J. P. HARRIS, OF BYHALIA, MISSISSIPPI.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **20,790**, dated July 6, 1858.

To all whom it may concern:

Be it known that I, J. P. HARRIS, of Byhalia, in the county of Marshall and State of Mississippi, have invented a new and Improved Plow; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a side elevation of the plow; Fig. 2, a bottom view thereof; Fig. 3, a longitudinal vertical section thereof in the plane indicated by the line *x x*, Fig. 2; Fig. 4, a front elevation thereof; Fig. 5, a view of the foot of the plow detached.

Like letters designate corresponding parts in all the figures.

A wooden stock, *A*, is secured to the beam of the plow near its rear end, and is firmly braced to the beam by a rod, *a*, passing through said stock and beam.

To the lower end of the stock is secured a foot, *B*, made in a single piece, of cast-iron or sheet-iron, in the form of a hollow shell, fitting round the front side of the stock, the sides or wings thereof curving backward and outward on either side of said stock, and the sole *b* thereof covering the angle between the said sides at the bottom, as represented in the drawings. The sole inclines upward as it extends back, so that a wedge-shaped space is formed in the lower extremity of the foot, which receives the end *c* of the stock, said end being made to fit closely therein.

A hole, *d*, is made near the upper end of the foot, centrally in front thereof, through which and a corresponding hole in the stock a bolt, *f*, passes and secures the foot to the stock in connection with the wedging-point, already described. A foot made in this manner protects the whole lower part of the stock, which is

subjected to no wear, and therefore may be made of wood, and it is easily attached to and detached from the said stock. In the sole *b*, near its front edge, is a hole, *g*, for the reception of a bolt, and on the under side thereof, near the rear edge and directly behind the hole, *g*, is a small projection, *h*, for the purpose hereinafter specified.

The point *C* of the plow is made in the form of an equilateral triangle, as shown in Fig. 2, the edges thereof being all sharpened. In the center of this point is a hole for the reception of a bolt, *i*, which passes through it and the hole *g* in the sole, thereby securing the point to the foot. The end of the bolt may screw into the hole *g*, as shown in the drawings, or may be held by a nut screwed thereon, or in any convenient manner. A set of holes, *k k k*, is made in the point equidistant from the central hole thereof, as shown in Fig. 2, for the reception of the projection *h* of the foot-sole. These holes are so situated that when either receives the said projection the corresponding angle will be in the right position to act as the nose of the plow. In this way the several angles of the point are successively brought into use, thereby enabling a point to last three times as long as an ordinary point.

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

The hollow foot *B*, formed and arranged for the reception of the stock *A* and point *C*, substantially as specified.

In witness that the above is a full and exact specification of my improved plow I hereunto set my hand this 19th day of April, 1858.

J. P. HARRIS.

Witnesses:

THOMAS B. WEBBER,
GEORGE B. MYERS.