

JAMES OLIVER.

Improvement in Plows.

No. 128,061.

Patented June 18, 1872.

Fig. 1.

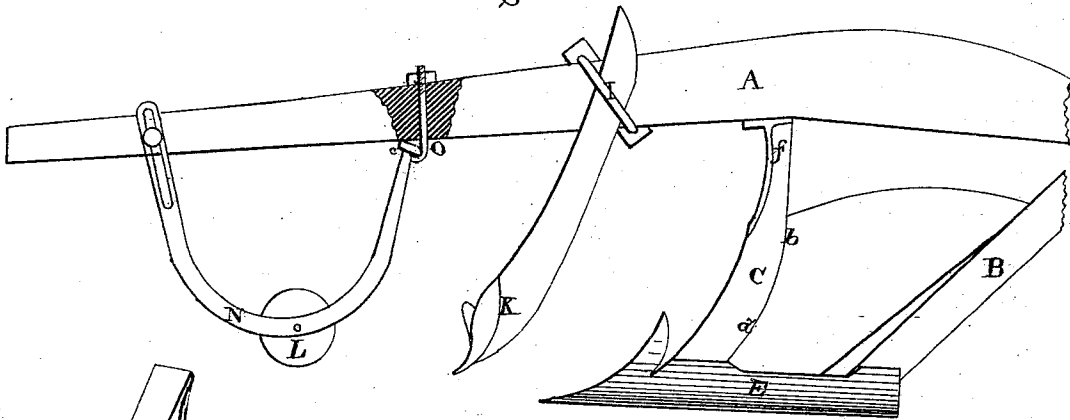


Fig. 2.

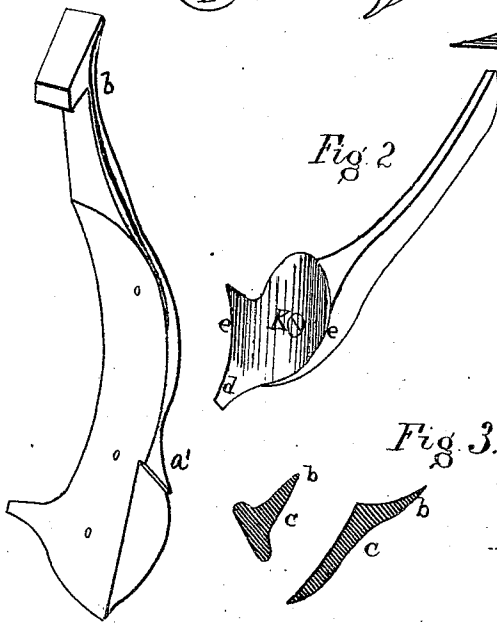
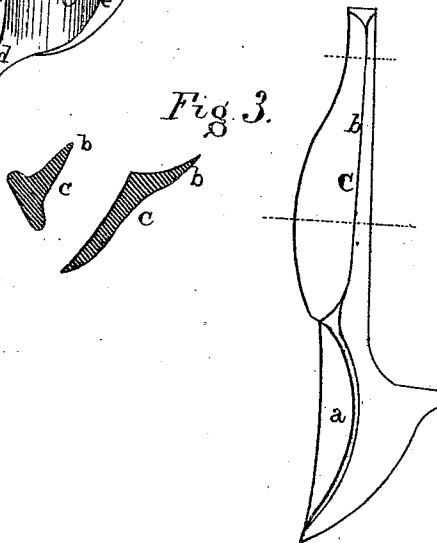


Fig. 3.



Witnesses:

Chas. H. Watson,
T. A. Lehmann.

Inventor.

James Oliver

UNITED STATES PATENT OFFICE.

JAMES OLIVER, OF SOUTH BEND, INDIANA.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 128,061, dated June 18, 1872.

To all whom it may concern:

Be it known that I, JAMES OLIVER, of South Bend, Indiana, have invented certain new and useful Improvements in Plows, of which the following is a specification:

My invention consists in the peculiar construction of the standard, in the peculiar shape of the cutter or colter, and in the devices by which the plow-wheel is held and made adjustable.

Figure 1 is a side view of my plow, Fig. 2 is a perspective of the colter-bit, and Fig. 3 are views of the standard.

A represents the beam, and B the handles, made in the usual manner. C is the standard, having cast to its lower end the false land-side *a*, which projects at an angle of sixty degrees (more or less) under toward the mold-board, so that when the land-side E is attached thereto it will stand at a corresponding angle or bevel. Beginning at the top of this false land-side, the standard takes a back upward twist, *a'*, as far as the top of the mold-board, from which point it extends upward perfectly straight to where it is secured to the beam. The bolt by which it is secured to the beam comes within the line of the heel of the land-side and on a straight line with the plow-point. By giving the standard this back upward twist and attaching the beam at the point described, thus producing a straight standard, it will not only be relieved of all unnatural strain or leverage which results from coming in contact with stones, roots, or obstructions of any kind, but the standard can be made very thin and light, reducing the weight in metal considerably. In constructing my standard the thick, heavy part, upon which the strain comes, is placed in front, while the rear part consists of a thin, sharp flange, *b*, which acts as a brace to the front part. Secured to the land-side of the beam, by means of the clamp I, is the colter-bit or skimmer K. This bit is made independently of its standard, and is bolted thereto so as to be made removable at will. It has a sharp cutting-point, *d*, shaped like a plowshare, placed in the center of the bit, which gives it the necessary suck; and the sides *e*, extending upward and back from this point, are sharpened so as to form cutting-edges, and are curved toward each other, as shown in the drawing, Fig. 2, making the face of the bit

concave. The side of the bit next to the standard acts as a mold-board, so as to direct the circular strip of grass cut by the point upward and sidewise, so as to fall inverted directly into the furrow cut by the plow.

By the use of a skimmer constructed as above described I am enabled to turn the strip and all the grass directly over flat into the furrow cut by the plow without partially upturned edges, so that the furrow cut by the plow will fall upon it and cover it entirely under.

The plow-wheel L is secured to the front end of the beam by the slotted arm N. When this wheel is on a straight line with the plow-point it runs along perfectly smooth; but as soon as the beam is shifted laterally so as to cut a wider or narrower furrow, and the wheel and point no longer in line, the wheel cannot run smoothly, and so keeps constantly pulling sidewise. In order to obviate this inconvenience I add a cross-piece, *c*, to the rear end of the arm, and secure it to the under side of the beam by means of the hook O, which allows this head to be shifted to the right or left, so that the wheel can be changed with the beam, and thus kept always in line.

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

1. The standard C, having the back upward twist *a* from the land-side and the straight upper part *f*, in combination with a sloping land-side, E, of the plow and beam A thereof, as and for the purpose set forth.

2. The standard C, having a back upward twist *a'* from the land-side, and the straight upper part *f* and projecting flange or rib *b*, constructed substantially in the manner as described, and for the purpose specified.

3. The colter-bit K, having the sharp point *d* and the circular cutting-edges *e*, so constructed that it will throw the strip into the furrow, substantially as set forth.

4. The slotted arm N, constructed with a cross-piece, *c*, in combination with the hook O or its equivalent, substantially in the manner and for the purpose specified.

JAMES OLIVER.

Witnesses:

A. MOORE,
JAS. T. C. ALLEN.