J. I. EAVENSON.

Plow.

No. 211,557. Patented Jan. 21, 1879.

Fig. 1.

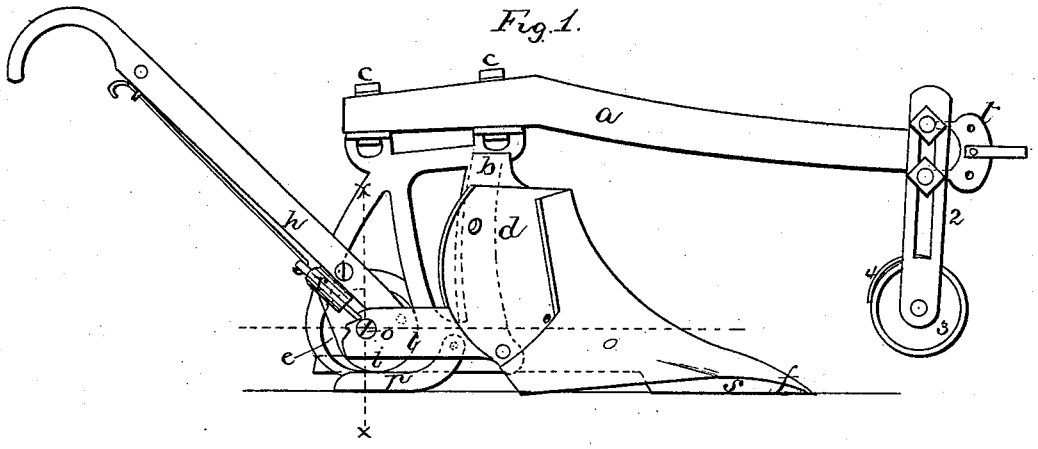


Fig. 2.

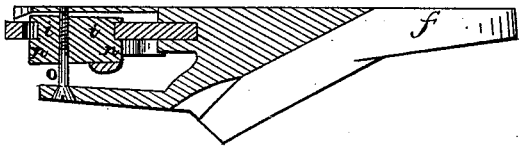


Fig. 4.

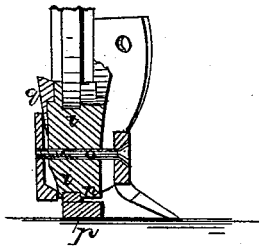


Fig. 3.

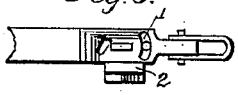
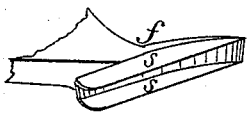


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES I. EAVENSON, OF PAOLI, PENNSYLVANIA.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **211,557**, dated January 21, 1879; application filed December 19, 1878.

To all whom it may concern:

Be it known that I, JAMES INGRAM EAVENSON, of Paoli, in the county of Chester and State of Pennsylvania, have invented certain new and useful Improvements in Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in plows; and it consists in the arrangement and combination of devices that will be more fully described hereinafter, whereby the plow is more easily managed by the operator and the draft made easier on the animal.

Figure 1 is a side elevation of my invention, showing the mold-board removed. Fig. 2 is a section of the plow; Fig. 3, a detail view. Fig. 4 is a section taken on line *x x*, and Fig. 5 is a perspective of the plow-point.

a represents the beam, which is secured upon the top of the standard *b* by means of the bolts *c*, which bolts pass up through slots in the standard, so that the beam can be adjusted laterally when so desired. The standard *b* is made of the form shown, or any other that may be preferred, and has the body *d*, to which the mold-board and point *f* are secured, pivoted to it at its lower front end, so that the body will have such a movement upon the standard as to cause the point to dip downward and raise upward, according as the handles are raised or lowered. In the rear lower corner of the standard is formed an oblong opening or hole, *e*, in which the eccentric *i* turns, which eccentric is rigidly secured to the lower ends of the two handles *h*. The pivot *o*, upon which the eccentric turns, passes through the extension *l* of the body or frame *d*, through the eccentric to one side of its center, through the flange *n*, and through the rear upper corner of the land-side.

The flange *n* is made in a single piece with the eccentric, but does not enter the hole *e*, but bears against the side of the standard and down upon the foot or flange *p*, formed on the standard. The casting *q*, which forms the socket for one of the handles, bears against the other side of the standard, and thus prevents the plow from becoming loose or shaky. When the handles are in the proper place for plowing, the foot or flange *p* is just level with the bottom edge of the land-side, and runs smoothly in the bottom of the furrow; but as soon as the handles are raised so that the spring-catch *r* catches in a higher notch of the ratchet the flange *p* is forced downward, and the point of the plow made to dip and the front end of the beam to rise upward, the movement of the front end of the beam being much greater and faster than at the point of the plow. When the handles are depressed so that the catch catches in a lower notch, the front end of the beam sinks downward and the plow-point rises upward, thus enabling the plowman to raise the plow much more easily when the end of the furrow is reached and the plow has to be turned around. The ratchet is formed on the end of the extension *l*, and the spring-catch has a rod connected to it, which runs back within easy reach of the plowman.

The plow-point is here shown as covering the whole front of the plow; but, if preferred, it may be made double-pointed, so as to be reversible, or in any of the known shapes. In order to make this point self-sharpening, it is made convex on top and concave on its under side, and a flange, *s*, is made on each of its lower edges, as shown in Fig. 5, so as to strengthen it. These flanges project downward below the bottom of the land-side, so as to always run below the bottom of the furrow, and thus prevent the under side of the point from being worn away. The friction of the earth upon its upper side wears away the metal at this point, and keeps sharpening the point as it wears away. Owing to the concave of the point and its peculiar shape, the point has a suction which causes it to stick to the earth as few other points will.

If so desired, the beam may be made to remain stationary instead of moving with the body or frame, when the frame will be made to move more rapidly and to rise upon its point when it is desired that the point run deeper.

To the front end of the beam is pivoted the clevis *t*, which has a slot, 1, in it, so that it can swing partly around upon the front of the beam, and this be always in line with the draft.

Clamped directly to this clevis is the slotted standard 2, having the wheel 3 on its lower end. As this standard is secured to the clevis, it is evident that the wheel will move always with the clevis, and thus also be always in a line with the draft instead of being always in line with the beam, and causing a side draft whenever the team moves to either side. By being always able to turn with the team, all that drag and side draft are taken from the team that is thrown upon them where the standard is clamped rigidly to the beam, in the usual manner, and the wheel regulates itself.

If so desired the slot 1 in the clevis may be dispensed with, and only the single pivotal pin used.

Pivoted or otherwise secured to the standard, just over the top of the wheel 3, is the scraper 4, which may either operate from its own weight or from a spring, and which keeps the wheel always clean from mud and dirt.

Having thus described my invention, I claim—

1. The plow-standard, in combination with the body *d*, that has the mold-board and plow-point secured to it, and a mechanism connected to and operated by the handles for moving the body upon the standard, substantially as shown.

2. The combination of the standard *b*, having the opening *e* and foot *p*, with the body *d* and an eccentric operated by the handles, substantially as set forth.

3. The body *d*, having the extension *l*, handles connected to the operating-eccentric, and provided with a spring-catch, flange *n*, and standard *b*, having the foot *p*, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of December, 1878.

JAMES I. EAVENSON.

Witnesses:
W. S. D. HAINES,
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