J. T. GREENFIELD.

Plow.

No. 219,935. Patented Sept. 23, 1879.

Fig. 1

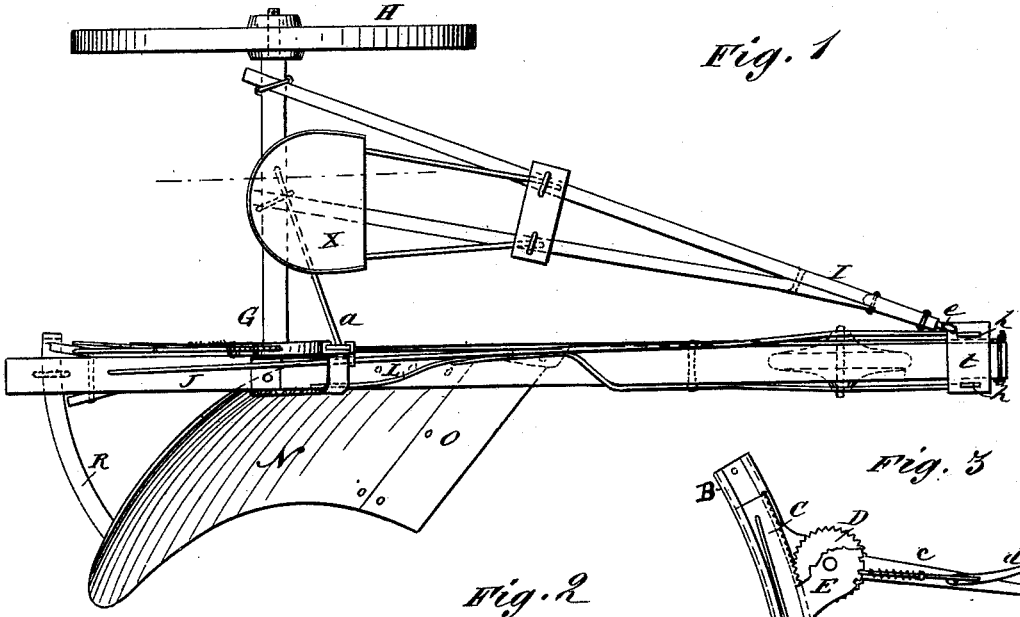

Fig. 3

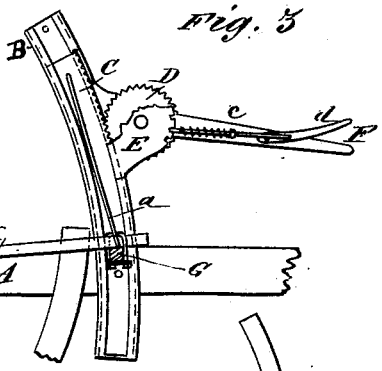

Fig. 2

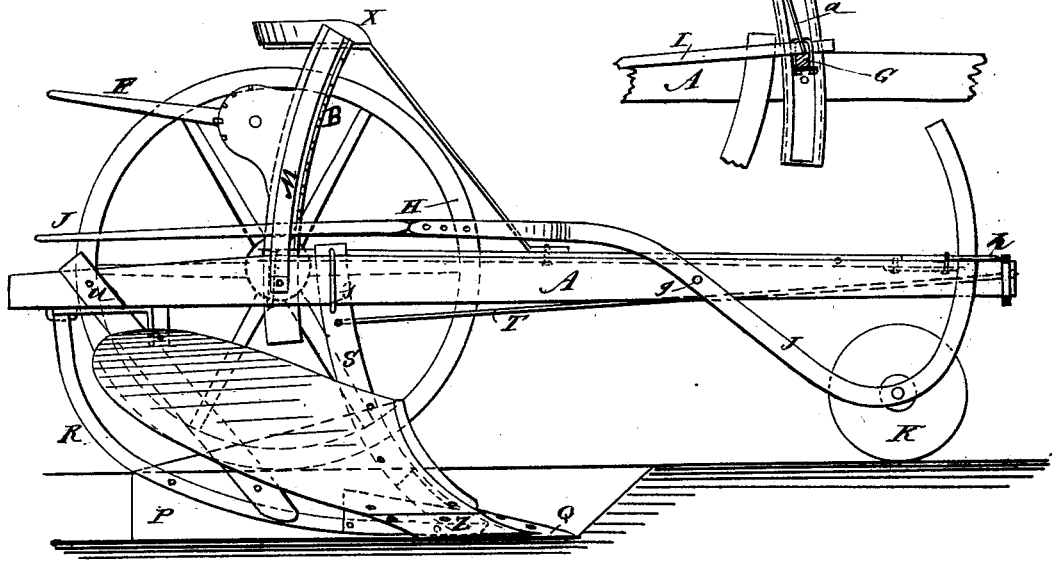

Fig. 4

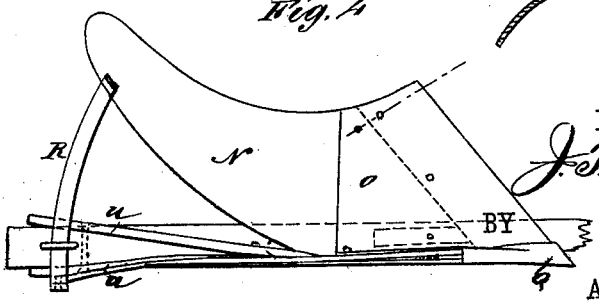

Fig. 5

WITNESSES:

C. Sedgwick

Edgar Tate

INVENTOR:

J. T. Greenfield

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN T. GREENFIELD, OF UNIONTOWN, KENTUCKY.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **219,935**, dated September 23, 1879; application filed April 29, 1879.

To all whom it may concern:

Be it known that I, JOHN T. GREENFIELD, of Uniontown, in the county of Union and State of Kentucky, have invented a new and useful Improvement in Plows, of which the following is a specification.

The object of my invention is to provide a plow the cutting parts and gage-wheel of which can be conveniently lowered or raised, as may be necessary, on account of hardness or unevenness of the ground, by a person seated on the plow, and also to provide a plow the cutting parts of which can be easily sharpened.

The invention consists in combining a beam having curved and grooved standard, an axle provided with toothed slide, a quadrant-lever, a curved lever sliding in guides and carrying gage-wheel, and hinged frame, as hereinafter described.

In the accompanying drawings, Figure 1 is a top view. Fig. 2 is a side view. Fig. 3 is a detail view of the ratchet-slide and cog-wheel. Fig. 4 is a view of the under side of the cutting parts. Fig. 5 is a detail view of the cutting parts.

Similar letters of reference indicate corresponding parts.

To the beam A is fixed a curved standard, B. This standard has a groove on its inner side, and in this groove a ratchet-slide, C, slides. Fixed to the standard is a small wing, E, in which is pivoted a cog-wheel. This cog-wheel is provided with a lever-handle, F, so that by raising or lowering the lever the cog-wheel will raise or lower the slide, so that this slide can be adjusted in any desired position.

The wing E has a number of small recesses at its edge, into which a bar, *c*, fits. This bar is pressed toward the wing by a small spiral spring. When the position of the cog-wheel is to be changed, the bar C can be drawn out of the recess by means of the lever *d*. One end of the axle G is fastened to the slide C, and on the other is the wheel H.

The tongue I consists of two pieces of wood understripped with iron, joined firmly together in front, and dividing gradually toward the axle. By means of a hook, *e*, it is fastened to the device at the head of the beam, and to the axle by means of clips, so that it can be adjusted on the same. This tongue also supports the seat X for the driver.

The lever J is made of iron, and is made of two parts, one on each side of the beam. Between these two parts the gage-wheel K is pivoted. The lever is pivoted at *g*, and passes through slots *h h* at the head of the beam A. Near the handle of the lever a spring, L, is found, which presses against the standard M, this standard being united at the top with the standard B. The spring, pressing against the brace portion M, engages the lever J with a ratchet-bar fixed to one side of the standard B, and thus the lever J, and with it the gage-wheel, can be raised or lowered and held in any desired position.

In the cutting parts of the plow the share O is made of wrought-iron, bent so as to form a flange, and has this flange riveted to the land-side. It fits flat against the lower edge of the wing. The lay is of steel, fitting squarely against the lower edge of the wing N, and is riveted to the top side of the share. The point is of steel and shaped to fit the other parts. As the point is the part of the plow that wears off first it is very important that the same can be easily sharpened. When the point of my plow is heated it can easily be cut off and a new point welded on by any ordinary blacksmith. The same can be done with the lay. The wing-brace is riveted or bolted to the tail of the wing N, and also forms a seat for the rear end of the beam.

The standard S is fastened to the beam A by a clip, *s*, passes downward, and is bolted or riveted to the land-side. The standard can be fastened to either side of the beam, as may be necessary.

A rod, T, passes from the standard S to the clevis *t* at the head of the beam. This clevis has several notches, by means of which the rod to which the horses are hitched can be raised or lowered to suit the draft.

The handles assist in giving rigidity to the wing.

The operation of the plow is the following: If the lever P is raised, the wheel resting on the ground will not be moved, but the beam and the parts connected to it will rise. According to the depth of the furrow to be made, the gage-wheel must either be raised or low-

ered. By pressing down the lever J the same is raised. By raising it the wheel is lowered. If the wheel-gearing should ever be out of order, the tongue I is unhooked from the clevis *t*, and the slide C taken out of the groove in the standard B, and thus that part of the plow consisting of the wheel, the axle, slide, tongue, and seat can be easily separated from the other part of the plow and repaired.

I am aware that plows having a wheel on the side have heretofore been made, but that I do not claim, broadly; but,

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

The combination of the beam A, having a curved and grooved standard, B, the axle G, provided with the toothed slide C, the quadrant-lever F, the curved lever J, sliding in guides *h* and carrying the gage-wheel K, and the hinged frame I, all arranged substantially as shown and described.

JOHN T. GREENFIELD.

Witnesses:

Dr. J. E. BROWN,

A. A. GRAHAM.