W.S. Rass Plon Nº 89,242. Patanted Ajur. 20,1869. 1 Ö 1 Witnesses: K.S. Junior J.J. Seale

## WILLIAM S. RABB, OF WINNSBOROUGH, SOUTH CAROLINA.

Letters Patent No. 89,242, dated April 20, 1869.

## IMPROVEMENT IN PLOWS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM S. RABB, of Winnsborough, in the district of Fairfield, and State of South Carolina, have invented an 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 view of a plow constructed with my improvement, the various mould-boards and points applicable thereto not being represented.

Figure 2, a top view of the same.

Figure 3, a partial view, showing a modification of the improvement.

Like letters designate corresponding parts in all of

the figures.

Let A represent a plow-beam, of any construction, and provided with the usual adjuncts, except the parts to which my invention particularly relates, and which I proceed to describe.

The essential feature of my invention consists in the employment of two (or more) movable feet, or standards, B C, to which mould-boards, wings, or points are attached, so arranged that either may be brought into position for operation while the other is raised out of action, or so that both may be brought into position for action together, substantially in the manner and for the purposes as follows:

I have represented, in figs. 1 and 2, a convenient method of adapting my invention, though I do not confine myself to any special construction.

The feet B C are pivoted at a, one on each side of the plow-beam A, as shown, so that either can be raised out of position, as B, and the other brought down into position, as C.

A suitable means of raising and lowering the feet consists in curved guide-arms, or rods, D E, with handles, de, respectively, for operating them, kept in guides,

 b c, on the side of the beam, as indicated.
The curved rods are concentric with the pivot a of the feet. They may be held up by any suitable means, and kept in the proper position, when down, by any device, such as the shoulder, or projection f, on each, to rest on the beam. In this position, they serve as braces for the feet.

But, to simplify the operation, I prefer to connect the two feet by a chain, or rope, H, the two ends of which are attached respectively to the feet, and which passes up over, or through a notch, loop, or hook, g, in, or on an upright, G, secured to the top of the beam, the length of the chain, or rope being such that it will hold one foot up when the other is down in position for operation, so that, when one foot is let down, it draws the other up, and vice versa. Then, if it is desired to allow both feet to come down into position for operation together, the chain, or rope  ${\bf H}$  is let down into a lower notch, h, or its equivalent, at just the proper height for the purpose.

In fig. 3, a modification of the device is shown, wherein the upright G is low, and the proper extent of movement is allowed to the rope, or chain H by extending it forward, and passing it around frictionpulleys, i, on the sides of the plow-beam, substantially as represented. This has the advantage of the upright G being shorter and less in the way than the high upright in fig. 1.

Other modifications may be adopted, provided that

the principle is preserved.

With these movable feet I use various mould-boards, and points, so as to produce convenient combinations, the principal of which I will here mention.

First, if it is desired to make a hill-side plow, a right mould-board is attached to one foot, C, and a left mould-board to the other foot, B. Thus, at each end of the furrow, the feet are shifted in position, so as to bring first the right and then the left mouldboard into operation, and always turn the furrow down

Second, a mould-board and share may be attached to one foot, and a subsoil point to the other, so that, going one way, the furrow can be turned, and, going the other way, the subsoil may be moved. If a man is plowing on a hill-side, with this arrangement the furrows can always be turned down hill, and always to the right, if preferred.

Third, in planting corn, or other seeds, two "bulltongue" points may be attached to the feet, and both be lowered so as to act together, to cover the corn by throwing a small ridge over it, and leaving it in a proper condition for plowing the first time afterward.

Fourth, in cultivating between the rows of corn, or other plant, a narrow point may be put on one foot, for running close to the plants, and a wider point put on the other, to move the earth in the middle of the

intervening space.

Fifth, it may be arranged in another way for cultivating cotton the first time, by using right and left turning-points which work together, the mule, or horse walking on the bed, by which he will not injure the young plants, since they require thinning out in any

Other combinations may be adopted, which it is not necessary to particularize, the capabilities of the invention being apparent.

What I claim as my invention, and desire to secure

by Letters Patent, is-

The movable feet B C, to which the mould-boards, or points are attached, arranged and operating substantially as and for the purposes herein specified.

The above specification of my improved plow signed by me, this the 24th day of October, 1868.

W. S. RABB.

Witnesses:

A. S. Douglass, L. M. BALICK.