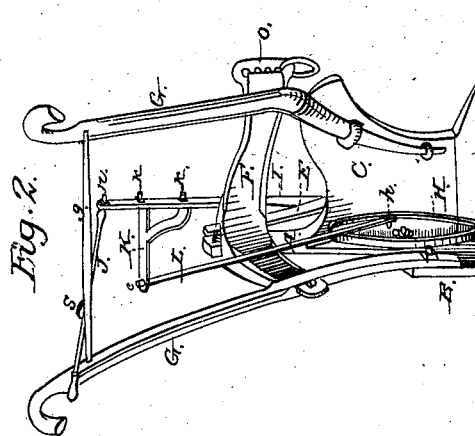
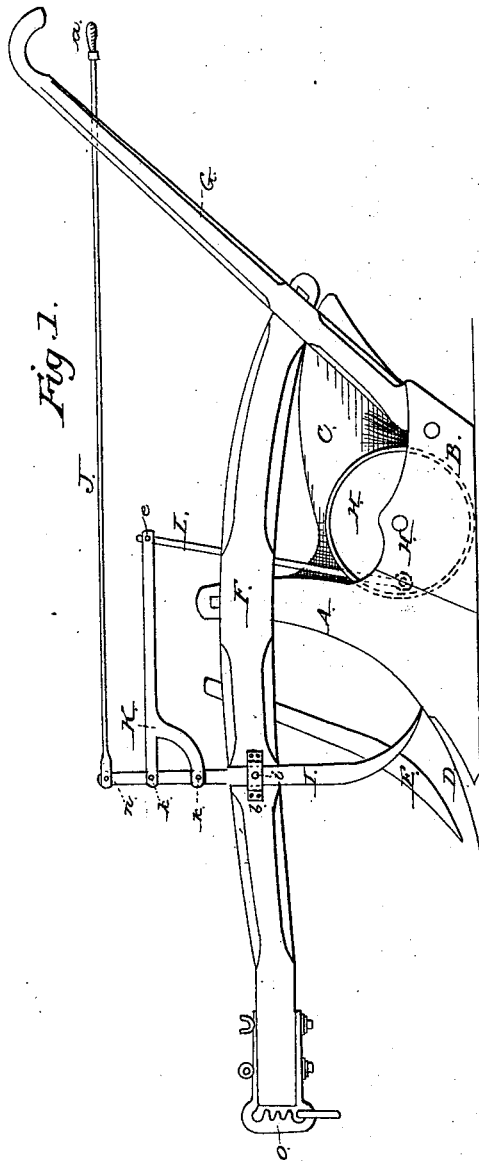


W. W. METCALFE.

Flow-Cleaner.

No. 5,855.

Patented Oct 17, 1848.



UNITED STATES PATENT OFFICE.

W. W. METCALFE, OF YORK SPRINGS, PENNSYLVANIA.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 5,855, dated October 17, 1843.

To all whom it may concern:

Be it known that I, WILLIAM WARNER METCALFE, of York Springs, Adams county, in the State of Pennsylvania, have invented certain new and useful Improvements in Plows, which I denominate the "Pivoted-Lever Plow-Cleaner," of which the following is a full, clear, and exact description, reference being had to the annexed drawings of the same, making part of this specification, of which—

Figure 1 is a side elevation, and Fig. 2 is a perspective view.

The same letters indicate the same parts in both the figures.

The nature of my invention and improvement consists in combining with any common plow a lever which turns on a pivot to clear away the straw, stubble, grass, or other obstruction which may or usually does accumulate upon the front edge of the colter by a simple motion of the hand of the plowman while the plow is progressing, instead of stopping it and walking round to remove the obstruction by the hand or foot, which is the only way in which such obstructions can be removed from the common plow. The length of time occupied in thus removing obstructions in the usual way in very weedy foul land is greater than the time which in strictness is occupied in the plowing. To save the time thus lost is the object of my invention, and the means used are fully adequate to the end, as has been demonstrated by actual experiment.

My improved cleaner may be rendered self-acting by connecting it with a wrist secured to the usual anti-friction wheel, placed on the inner side of the landside of the plow by means of a connecting-rod or pitman. In this case the cleaner would be kept constantly vibrating on the side of the colter.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The standard A, the landside B, the mold-board C, the point D, the colter E, the beam F, the handles G, the wheel H, and the clevis O are all made and arranged in any of the usual modes, or in any convenient way, and being well and commonly understood a more particular description of them is deemed unnecessary.

The cleaner or lever I is made of steel and iron or other suitable material, its lower end being either straight or curved, and its front edge rendered sharp for the purpose of cutting briars, roots, or other obstructions of a like kind. This lever is secured to the side of the beam by the clamp *i*' and the pin or pivot *i*, on the latter of which it turns as a fulcrum. The rod J rests at its rear end upon the upper cross-bar, *g*, which connects the handles of the plow together, and is secured in its position by the staple *s*, which fits loosely over it, leaving it free to slide backward and forward. Its front end is connected with the upper end of the lever I by means of a joint-pin, *n*, or other flexible connection. On the rear end of the rod J a handle, *a*, is secured; or a loop may be formed for the purpose of being laid hold of by the hand of the plowman and pulled, which draws back the upper end of the lever I and advances the lower end of the same, which, as it passes obliquely across the colter, detaches and turns off to one side any obstruction that may have accumulated upon it. This operation is repeated as often as the colter becomes obstructed.

The cleaner I may be rendered self-acting and kept in a state of constant vibration against the side of the colter, so long as the plow continues in motion, by connecting to it the forked lever K by means of screw-bolts *k* *k*, or in any other way by which a rigid connection is formed; and joining this lever by means of a joint-pin, *e*, to the upper end of the connecting-rod L, the lower end of which rod is placed upon the wrist *h* of the wheel H, which, as it revolves, raises and lowers the pitman L, which vibrates the lever K and the cleaner I connected therewith. The wheel H performs the double office of operating the cleaner and carrying the plow.

The cleaner I may be made either sharp or blunt at its lower end, at the option of the constructor.

When the cleaner I is operated by hand the apparatus by which it is rendered self-acting may be detached, and vice versa.

Having thus fully described the construction and operation of my invention and improvement, what I claim therein as new, and desire to secure by Letters Patent, is—

The combination of the lever I with the plow, for the purpose of clearing obstructions from the colter, whether the same be constructed, arranged, and operated as herein described, or in any other manner substantially the same.

In testimony whereof I have hereunto signed

my name, in presence of two subscribing witnesses, this 2d day of December, 1847.

WILLIAM WARNER METCALFE.

Witnesses:

NATHAN GRIEST,

ISAAC W. PEARSON.