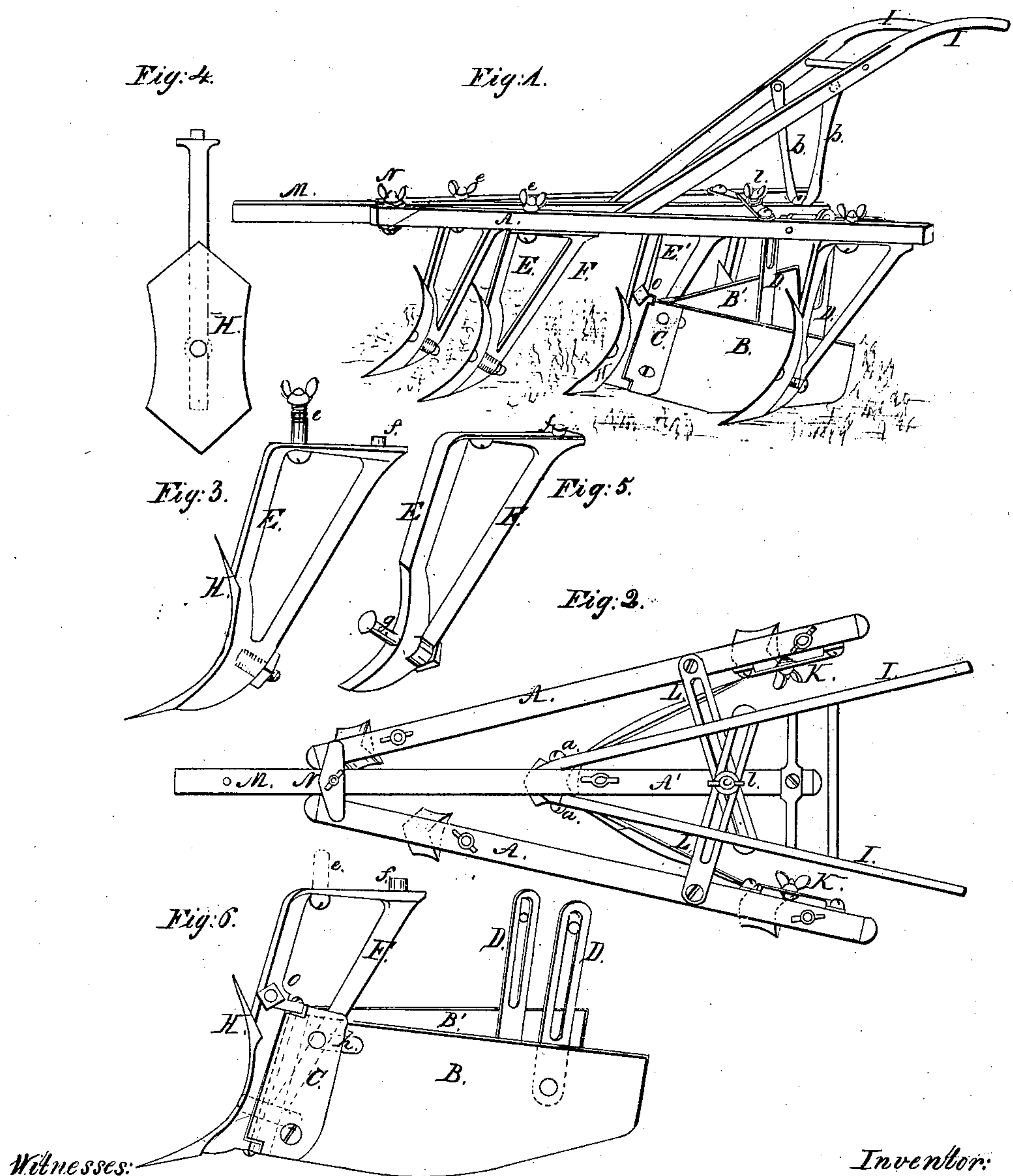


L. R. WRIGHT.
CULTIVATOR AND PLOW COMBINED.

No. 81,054.

Patented Aug. 11, 1868.



Witnesses:

Charles McKim
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Leurs R Wright

UNITED STATES PATENT OFFICE.

LEWIS R. WRIGHT, OF TROY, NEW YORK.

IMPROVEMENT IN CULTIVATOR AND PLOW COMBINED.

Specification forming part of Letters Patent No. 81,054, dated August 11, 1868.

To all whom it may concern:

Be it known that I, LEWIS R. WRIGHT, of the city of Troy, in the county of Rensselaer and State of New York, have invented a new and Improved Combined Cultivator and Plow; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being hereby had to the accompanying drawings, which form and make a part of this specification.

Like letters represent and refer to like or corresponding parts.

Figure 1 is a perspective view of a plow and cultivator constructed in accordance with and containing my invention and improvements, hereinafter fully described and set forth. Fig. 2 is a top view of my said cultivator and plow, more clearly showing the construction of the various parts thereof, as hereinafter more fully described and set forth. Fig. 3 is a view of one of the standards, which is attached to the frame of the cultivator, and to which standard is attached the tooth of the cultivator, substantially as shown in the accompanying drawings, and more fully hereinafter described and set forth. Fig. 4 is a front view of one of the cultivator-teeth, more fully hereinafter described. Fig. 5 is a perspective view of one of the standards with the tooth removed therefrom and showing the bolt by which the said tooth is attached thereto, as hereinafter fully described and set forth. Fig. 6 is also a perspective view, showing the center standard and tooth, and also showing the plow and the manner of attaching and combining the same with the said center standard, as fully hereinafter described and set forth.

The nature of my said invention and improvements consists in combining with a cultivator a plow so arranged and connected therewith that the same may be used together or separately, as deemed best, substantially in the manner and for the purposes more fully hereinafter described and set forth.

It also consists in hinging the mold-board to the center standard, as shown at Fig. 1 and by dotted lines at Fig. 6, so as to allow a lateral movement to the said mold-board to regulate the width of the furrow, substantially as hereinafter described and set forth.

It also consists in the use and employment

of the double mold-board B C, so constructed and hinged together as to allow the raising and lowering of the larger section of the said mold-board B by means of the slotted arms D D, whereby the height of the furrow to be cut may be regulated and determined, substantially in the manner and for the purposes hereinafter fully described and set forth.

It also consists in the use and employment of a triangular-shaped standard consisting of the tooth-bed and upright E and brace F, all cast in one solid piece, whereby great strength is obtained, combined with lightness of material, substantially as hereinafter described and set forth.

It also consists in the use and employment of the six-pointed curved tooth H, in combination with the triangular-shaped standard E F, substantially in the manner and for the purposes hereinafter fully described and set forth.

To enable others skilled in the art to which my invention relates to make and use the same, I will here proceed to describe the construction and operation thereof, which is as follows, to wit:

The frame A of my said cultivator and plow I design to make of some hard wood that will answer the required purpose, and of the usual form, and of any size and strength required or deemed best.

I I are handles, which are securely fastened to the frame A by means of the screws *a a*, Fig. 2, and the braces *b b*, Fig. 1, and which said handles are for the purpose of guiding and working the said plow, and are made of wood, of the usual size and construction.

The standards E F, &c., are designed to be made of malleable iron, and are securely fastened to the frame A by means of the screws and nuts *e e*, &c. The projections *f f*, &c., on the standards, which are shown at Figs. 3, 5, and 6, catch into recesses on the under side of the frame A, and aid in securely holding and fastening the said standards E F, &c., onto the said frame A; but, if desired, the said standards may be fastened to said frame in any other manner thought best.

The teeth H H, &c., I design to make of steel, (but other metal may be used, if desired,) and of form and construction substantially as shown in the accompanying drawings. The

teeth are made pointed at both ends, so as to be reversible, and by being made curved, as shown in the drawings, the earth can be more completely displaced and cultivated than by the use of any other teeth heretofore in use. The said teeth *II II*, &c., are securely fastened to the standards *E F*, &c., by means of a nut and screw, *g*, Fig. 5, or any other means thought best to use.

The standard directly under the arms *II*, and marked *E'*, I call the "center standard," and to this center standard I hinge the two sections of the mold-board, (marked *C*,) which allows the free working of the same, for the purposes hereinafter described.

The main parts of the mold-boards *B* and *B'* are fastened to the sections *C* and *C'* by means of nuts and screws, and the upper nut works in a slot, *h*, in the said mold-board *B*, whereby the said mold-boards *B* and *B'* may be raised and lowered at pleasure, or as it is desired to regulate the height of the furrow to be cut, when the said plow is in operation. The said mold-boards *B* and *B'* are held in any desired position by means of the slotted arms *D D*, Fig. 1, which are fastened to the frame *A* by means of the nuts and screws *k k*. (Shown at Fig. 2.)

L L, Fig. 2, are slotted arms running across the top of the frame and held in position by the thumb-screw *l*, (shown at Figs. 1 and 2,) and which thumb-screw is fastened to the center frame-piece, *A'*. These slotted arms *L L* and thumb-screw *l* are for the purpose of regulating the distance between the mold-boards *B* and *B'*, whereby the width of furrow to be cut is as hereinbefore described. The said mold-boards *B* and *B'*, or sections thereof, *C* and *C'*, being hinged to the center standard, *E'*, allows the free working of the said mold-boards *B* and *B'* laterally, while the slots *h h*, Figs. 1 and 6, allow the said mold-boards *B* and *B'* to be elevated or depressed as required, thereby regulating the height of the furrow to be cut, substantially as hereinbefore described. The frame-pieces *A A* are hinged or loosely riveted to the center frame-piece, *A'*, at *N*, Figs. 1 and 2.

At *M*, Figs. 1 and 2, may be fastened any suitable device for the purpose of fastening the horse or horses to said plow and cultivator.

The arms *b b*, nuts and screws *e, n, l*, and *k*, and slotted arms *D D* and *L L*, may all be made of cast-iron and of any size, shape, and strength that will best answer the required purpose.

If desired to use the cultivator and not the plow, the plow may be readily removed by displacing the nut and screw *o*, Figs. 1 and 6, and the nuts and screws *k k*, Fig. 2, when, it will be readily seen, the mold-boards may be easily removed; or, if desired to use the plow alone, the teeth and standards may be readily removed, as will be seen by reference to the accompanying drawings.

Having thus described the nature of my said invention and improvements, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The double mold-board *B* and *C*, so hinged and connected together that the main part of said mold-board *B* may be elevated or depressed at will, according to the height of furrow desired to cut, substantially as fully hereinbefore described and set forth.

2. The hinging of the sections of the mold-board *C* and *C'* to the center standard, *E'*, whereby a lateral motion may be given to the mold-boards *B* and *B'* to regulate the width of furrow to be cut, substantially in the manner and for the purposes more fully hereinbefore described and set forth.

3. The slotted arms or their equivalents, *D D*, in combination with the mold-boards *B* and *B'*, substantially in the manner and for the purposes herein described and set forth.

4. The upright or tooth-shoe *E*, in combination with the brace *F*, or its equivalent, all cast in one solid piece, substantially in the manner and for the purposes herein fully described and set forth.

5. The curved reversible tooth *II*, in combination with the tooth-shoe *E* and brace *F*, each being constructed and operated substantially in the manner and for the purposes hereinbefore described and set forth.

In testimony whereof I have hereunto set my hand this 25th day of March, A. D. 1868.

LEWIS R. WRIGHT.

In presence of—

CHARLES D. KELLUM,
JAMES DALEY.