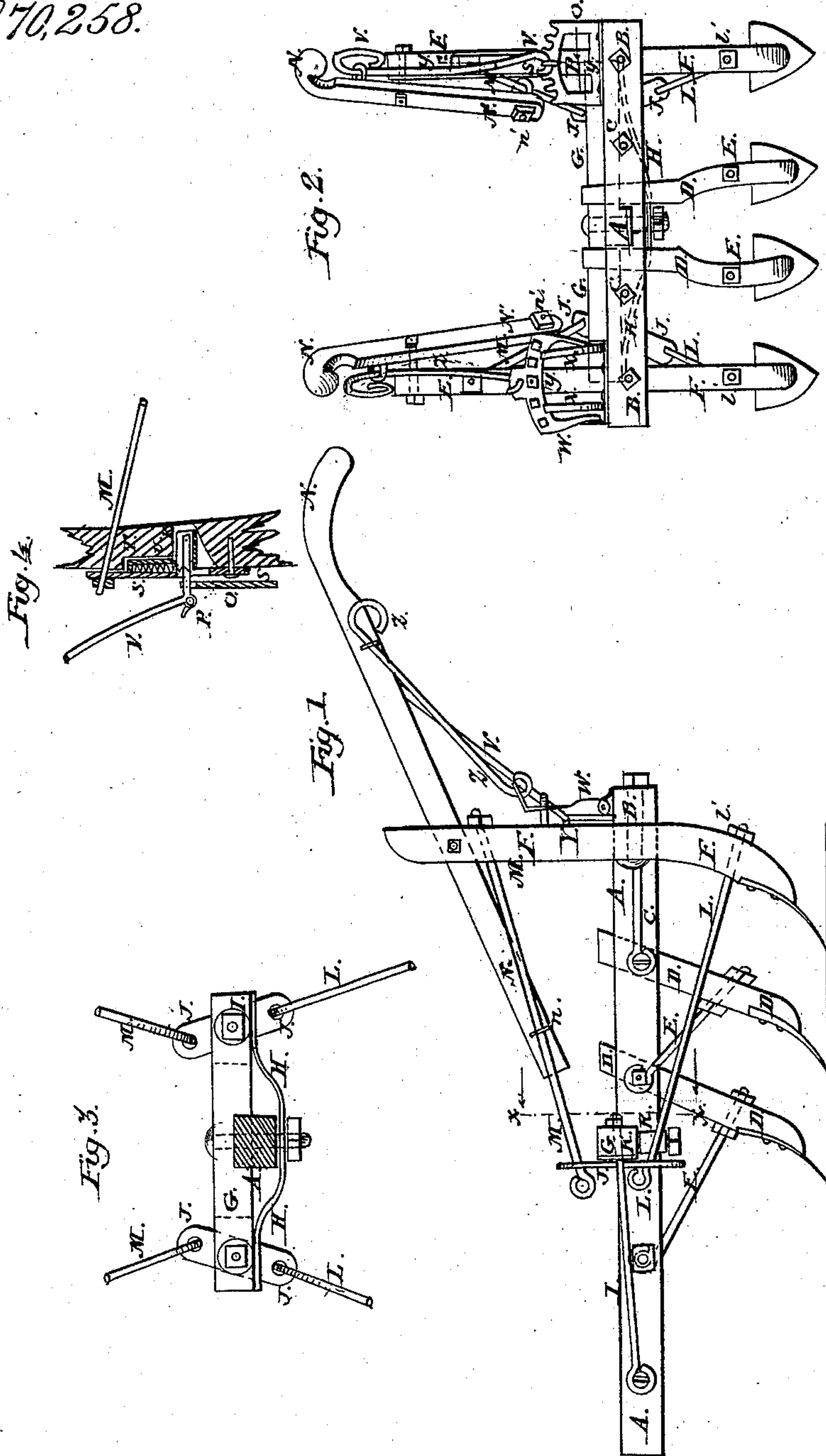


E. W. Pike.

Cultivator.

Patented Oct. 29, 1867.

N^o 70,258.



J. Almon Fraser
and F. Roberts } Witnesses:

Inventor:
E. W. Pike
per Munn & Co.
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United States Patent Office.

E. W. PIKE, OF GALESBURG, ILLINOIS.

Letters Patent No. 70,258, dated October 29, 1867.

IMPROVEMENT IN CULTIVATORS.

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, E. W. PIKE, of Galesburg, in the county of Knox, and State of Illinois, have invented a new and useful Improvement in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved cultivator.

Figure 2 is a rear view of the same.

Figure 3 is a detail sectional view of the same, taken through the line *x x*, fig. 1.

Figure 4 is a detail sectional view of the same, taken through the line *y y*, fig. 2.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of W. H. Smith's cultivator, patented January 15, 1861, and numbered 31,132, so as to make it more convenient, reliable, and effective in operation, and it consists in the improvements hereinafter more fully described and set forth.

A is the beam of the cultivator, to the forward end of which the draught is applied, and to the rear end of which is attached the cross-beam B. C are brace-rods which pass through the cross-beam B, and the forward ends of which are bolted to the beam A, as shown in figs. 1 and 2. D are the forward plough-standards, two of which are used, and which are bolted to and upon opposite sides of the beam A, the one somewhat in advance of the other, and which are strengthened by brace-rods E, as shown in fig. 1. F are the rear or outer standards, which are pivoted to the cross-beam B by bolts passing through said standards, and through the said cross-beam near its ends. G is a cross-beam securely bolted to the beam A, at or near its middle part. H is a strengthening-brace, the ends of which are secured to the ends of the cross-beam G, and which passes beneath and is securely bolted to the beam A, as shown in fig. 3. The cross-beam G is further strengthened by the brace-rods I, the forward ends of which are secured to the forward part of the beam A, and the rear ends of which pass through and are secured to the ends of the said cross-beam G. J are swinging plates, through holes in the centre of which the brace-rods I pass, so as to pivot the said plates or bars J to the forward sides of the ends of the cross-beam G. K are plates attached to the forward side of the ends of the cross-beam G, to prevent the said beam from being worn by the movement of the swinging plates or bars J. L are rods, the forward ends of which have beads or buttons formed upon them, and which pass through and are swivelled to the lower parts of the swinging bars or plates J. The rear ends of the rods L pass through the lower parts of the outer or rear standards, where they are secured in place by screw-nuts *L'*, so that the tautness of said rods may be adjusted at pleasure. M are rods, constructed and connected with the upper parts of the plates J and standards F in the same manner as the rods L are connected with the lower parts of said plates and standards. N are the handles, which are bolted to the inner sides of the upper ends of the standards F, and to the forward ends of which are attached eye-bolts *n'*, through the eyes of which the rods M pass. O is a plate attached to the upper side of the end of the cross-beam B, the upper end of which is made circular, and is notched to receive the bolt or block P; the inner end of which is pivoted between the inner ends of two jaws, R, formed upon or attached to the inner side of the plate G. T is a socket attached to or formed upon the inner side of the upper part of the plate S, and in which is placed a coiled wire spring, U, the lower end of which rests upon the upper side of the pivoted bolt or block P. V is a rod, the lower end of which is attached to the end of the bolt or block P, and the other end of which extends up into such a position that it can be conveniently operated by the ploughman. W is a plate, the lower edge of which is hinged to the upper side of the end of the cross-beam B, and which is held forward against the standard F by the springs X attached to the said cross-beam B, and the free ends of which press against the rear side of the hinged plate W. The upper part of the plate W is slotted, to receive the pin Y rigidly attached to the standard F, and which enters one or the other of the said slots in the plate W. The slots of the plate W are arranged in the arc of a circle, as shown in fig. 2, and to the upper edge of the said plate is attached the lower end of rod Z, the upper end of which extends up into such a position as to be conveniently operated by the ploughman. By this construction the outer ploughs may be quickly and conveniently adjusted, so as to run closer together or further apart, so as to work as close to the plants as may be desired, or so as to avoid uneven hills.

I claim as new, and desire to secure by Letters Patent—

1. The combination of the plate S, jaws R, and coiled spring U, with the pivoted catch-block P and standard F, substantially as herein shown and described, and for the purpose set forth.

2. The hinged plate W and springs X, in combination with the cross-beam B and standards F, substantially as herein shown and described, and for the purpose set forth.

3. The combination of the brace-bar H with the beam A and cross-beam G, substantially as herein shown and described, and for the purpose set forth.

E. W. PIKE.

Witnesses:

E. H. CONGER,

H. H. DAVIS.