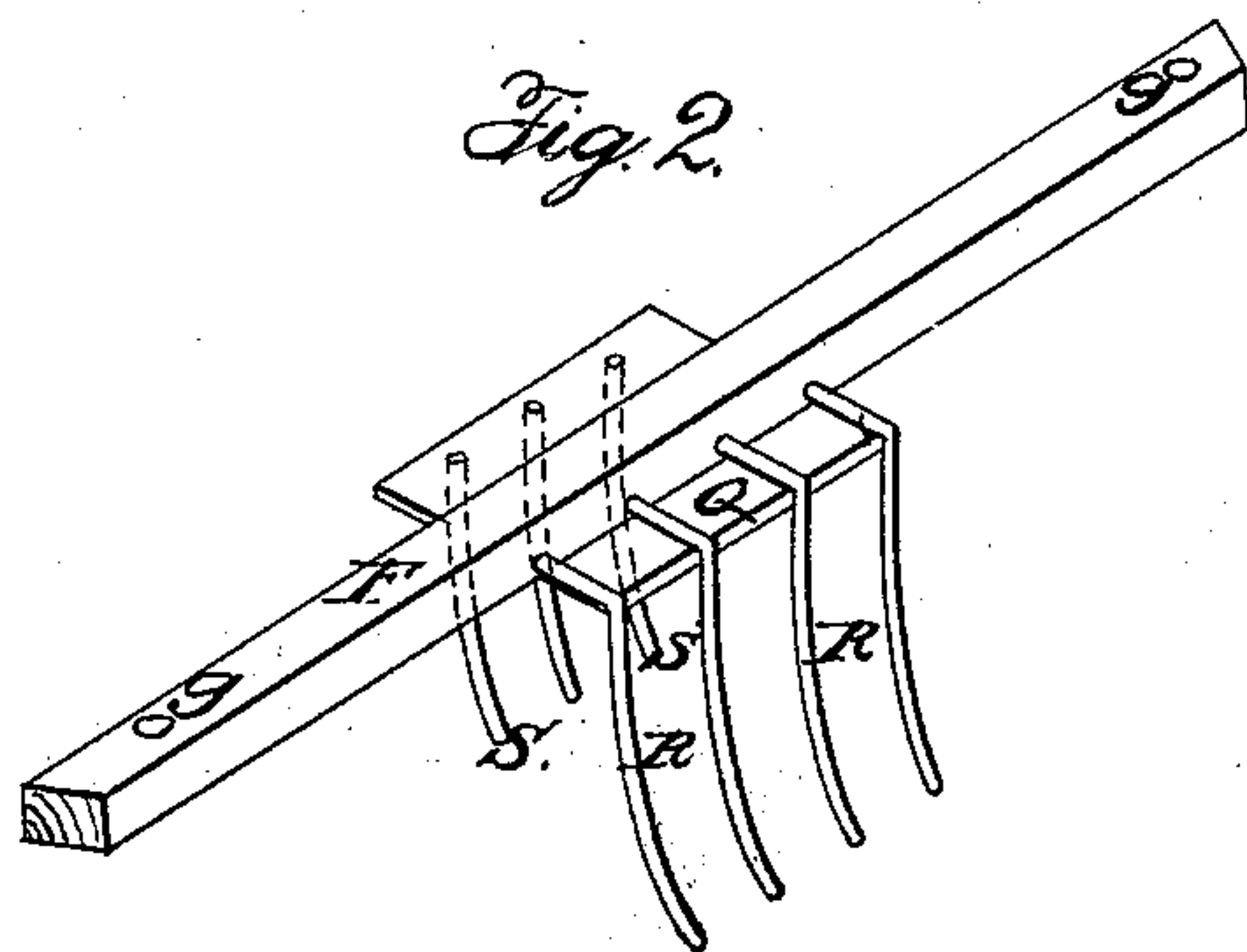
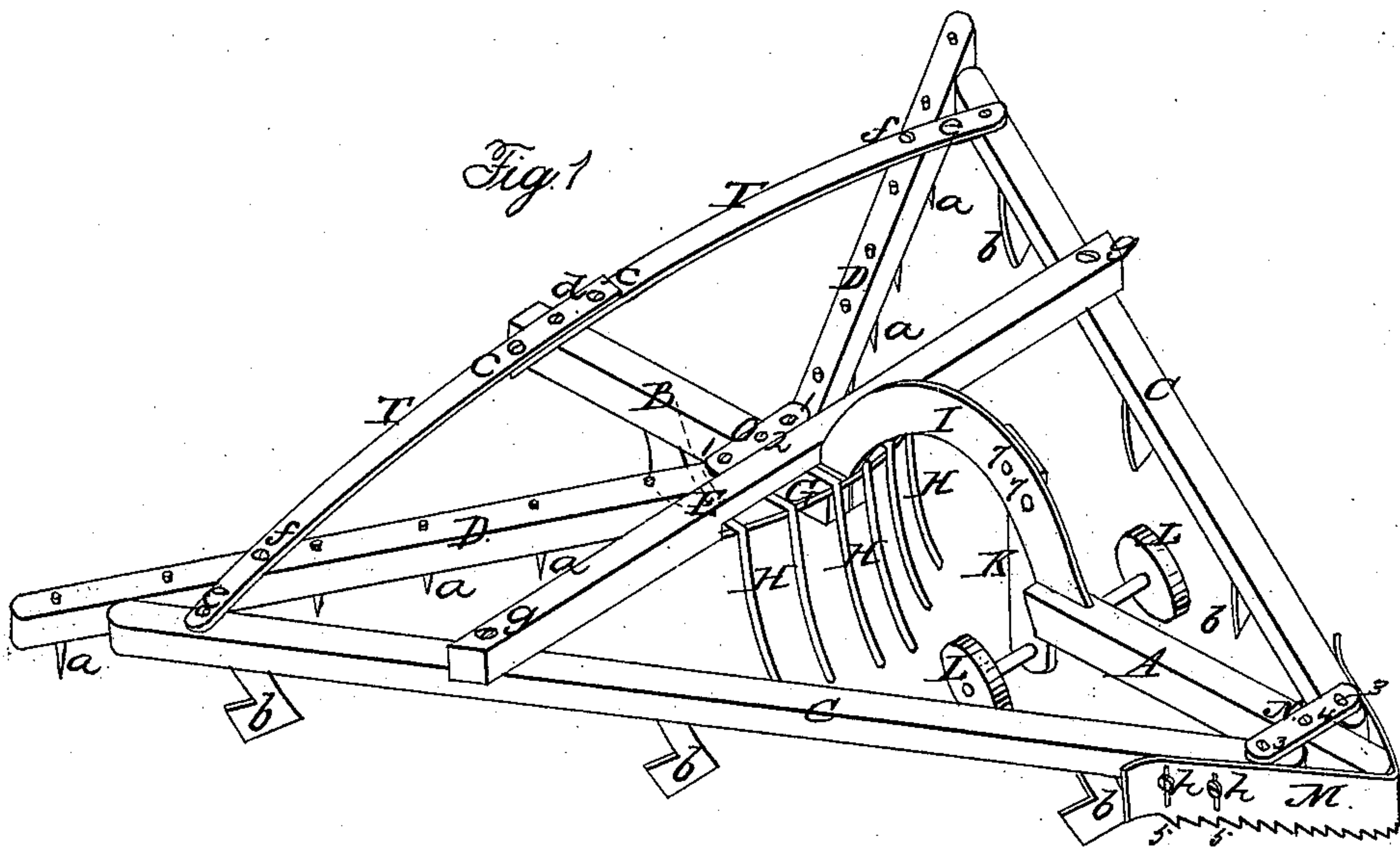


J. SLOCUM.

Cultivator.

No. 30,767.

Patented Nov. 27, 1860.



Witnesses:

E. Cohen  
Julius Horst

Inventor:

Joseph Slocum  
By A. B. Strongham  
Atty.

# UNITED STATES PATENT OFFICE.

JOSEPH SLOCUM, OF SYRACUSE, NEW YORK.

## IMPROVEMENT IN CULTIVATING-HARROWS.

Specification forming part of Letters Patent No. 30,767, dated November 27, 1860.

*To all whom it may concern:*

Be it known that I, JOSEPH SLOCUM, of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Cultivating-Harrows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying-drawings, in which—

Figure 1 represents a perspective view of said harrow. Fig. 2 represents a detached view, hereinafter to be referred to.

My invention relates to the arrangement of the several parts of the frame of a harrow by which they can be adjusted in such a manner as that said harrow may be used either for cultivating purposes and converted into a machine for digging potatoes.

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

The center beam of my harrow is made of two sections, A and B, which are connected to each other by an arched iron brace, I, the object of which will be explained hereinafter. The side pieces, C, of the frame are hinged to the front end of the center piece, A, by means of the plate N, which is secured to said beam by means of the bolt 4, and to which the side pieces, C, are secured by means of the bolt 3. The rear ends of the side pieces, C, are connected to the center beam, B, by means of the iron braces T, which also serve the purpose of spreading or contracting said sides, they having adjusting-holes *c* near their ends, into which the bolt *d* may be inserted, by which the braces T are secured to the beam B.

The cultivator-teeth *b* are secured to the side pieces, C, and the tooth U is secured to the center beam, and they constitute a cultivator which is adaptable for the cultivation of various crops, as its frame can be spread or contracted at pleasure. It is desirable to use in addition to these cultivator-teeth a harrow for cultivating. In that case I apply the frame-pieces D, which are provided with harrow-teeth *a*, by securing them to the plate O by means of the bolts 1, said plate being fast-

ened to the beam B by means of the bolt 2. The outer ends of the frame-pieces D are secured to the braces T by means of the bolts *f*.

When this cultivator is to be used for digging potatoes the cross-beam E is secured to the top of the side pieces, C, by means of the screws *g*, as represented in Fig. 1. The plate G, to which the fingers H are secured, is permanently connected to the cross-beam E, and said fingers, when the machine is drawn over the field, enter the soil, which has been previously loosened by the cultivator-teeth, and dig up the potatoes, the loosened earth passing through between the fingers H, while the potatoes are rolled out by the fingers and remain on the top of the soil. The object in using the arched iron brace I in front of the potato-digger is to afford ample room to the potatoes, straw, stalks, or other matters which lodge in front of the fingers H, and which would be packed closely together and choke up the spaces between the fingers H if the connection between the beams A and B were a straight one or if a single beam were used in their places.

The shaft of the rollers or wheels L, which supports the machine when used for cultivating, is supported by the bracket K, which is secured to the brace I by means of the bolts 7, and may be adjustable thereon; but in digging potatoes said shaft is set farther toward the front end of the machine and on an axle long enough to straddle the rows of potatoes, and this bearing can also be adjusted so as to raise or lower the wheels for the purpose of causing the cultivator-teeth and the fingers H to penetrate the ground to any desired depth.

The plate M, which is secured to the front end of the machine, is serrated at its lower edge and cuts off the stalks and weeds and forces them aside when the machine is drawn over the field, and thus prevents them from accumulating in a heap in front of the fingers H. This plate can be set higher or lower, as the screws *h* by which it is secured to the side pieces, C, pass through the slots 5, which thus permit of the necessary adjustments.

Instead of using a plate with one set of tines or fingers H, I may use a plate, Q, with two sets of tines, R S, which latter are set in al-



ternate positions, so that each of the tines S will be in the center tine of the spaces between two of the tines R. The plate Q is secured to a separate cross-beam, F, which is secured to the sides C in a similar manner as the beam E is secured thereto.

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

A cultivating-harrow composed of the two frames C D, furnished with suitable teeth or plows, the side pieces of which frames are

hinged at their front ends and can be spread or contracted at their rear ends, and which are united by a center beam, A I B, composed partially of wood and partially of an arched iron bar, and supported on a pair of wheels, the whole being arranged to operate in the manner and for the purpose herein set forth and represented.

J. SLOCUM.

Witnesses:

A. B. STOUGHTON,  
I. HIRSCH.