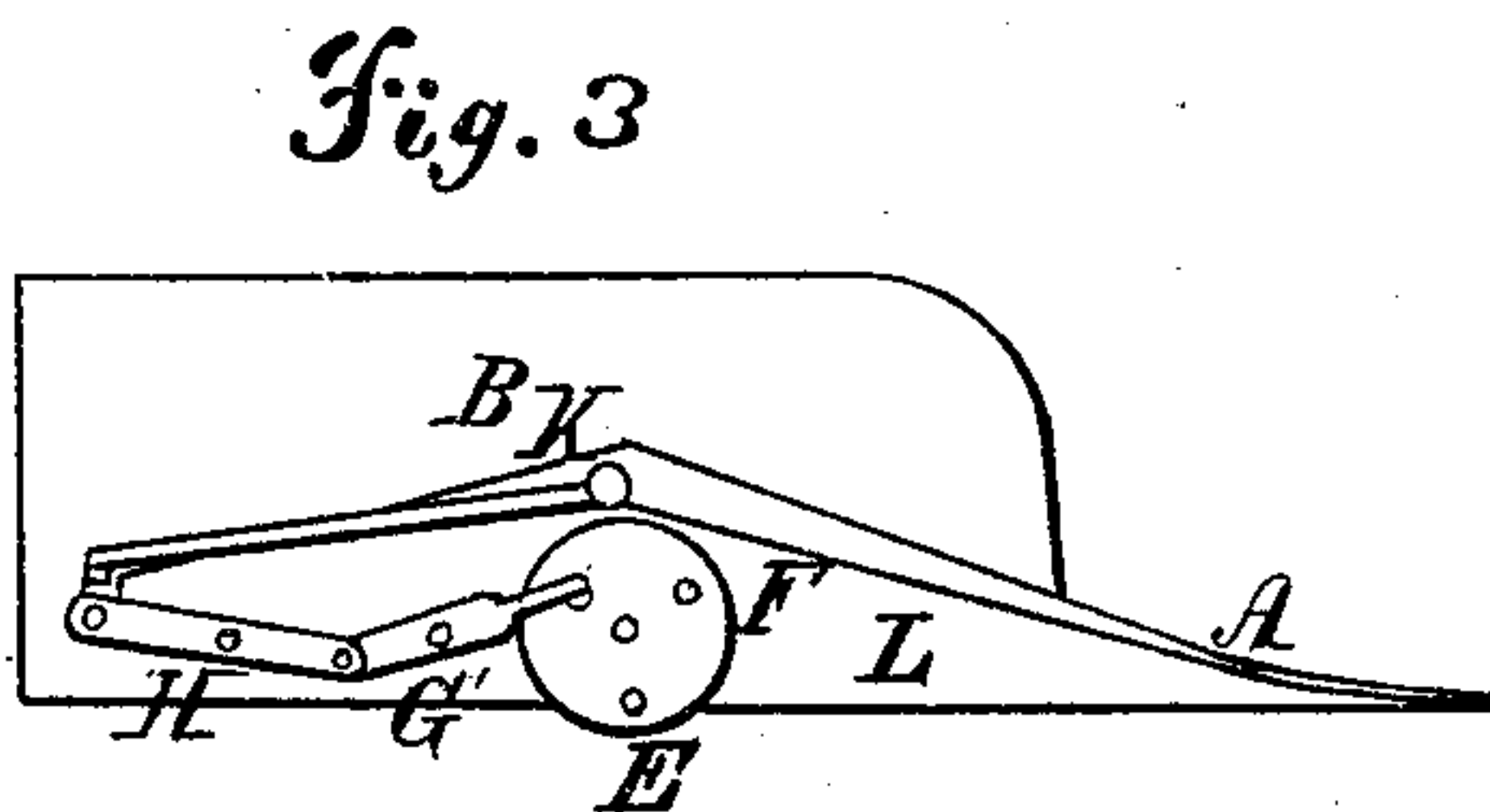
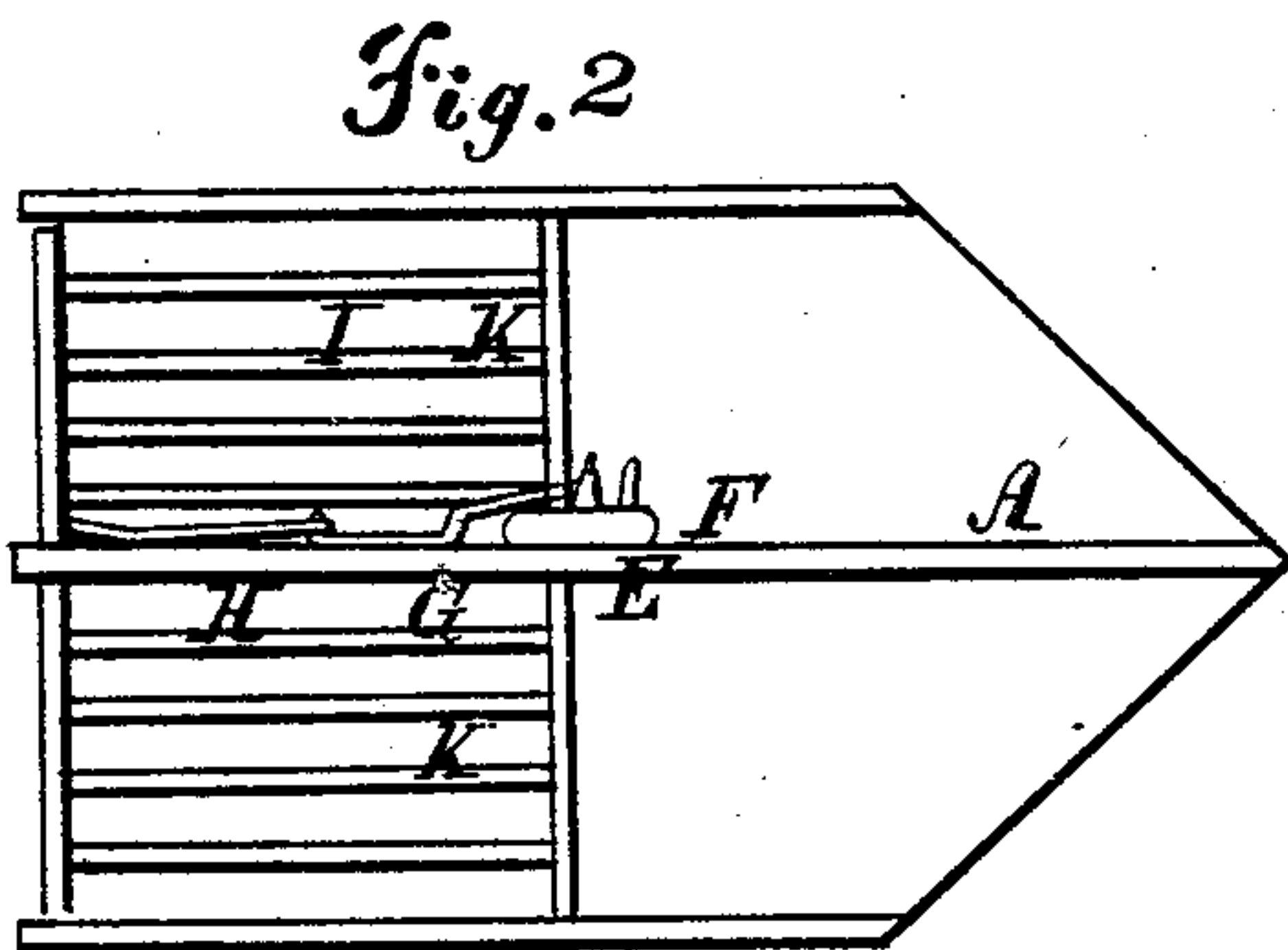
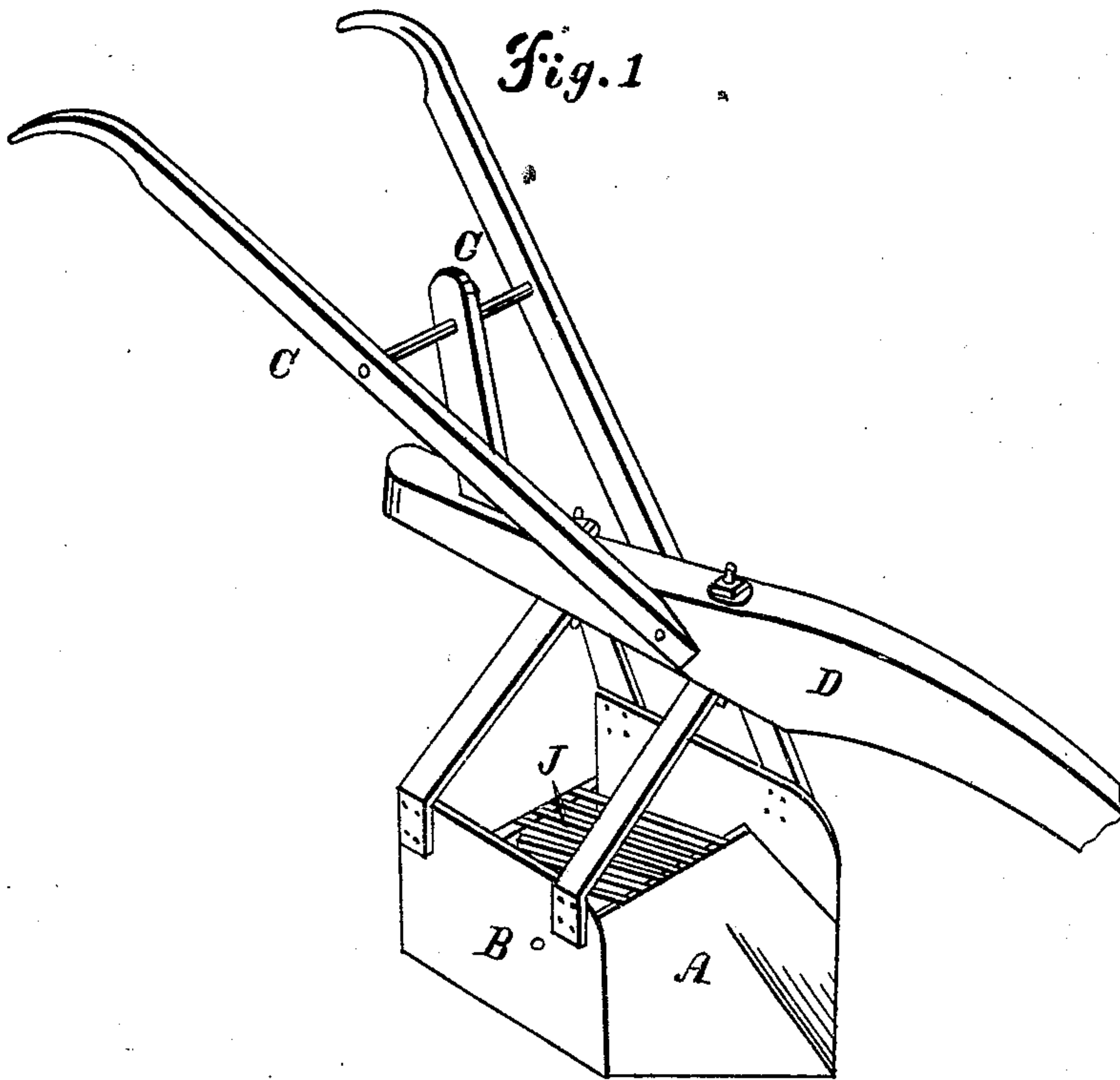


T. N. HENDERSON.

Potato Digger.

No. 89,661.

Patented May 4, 1869.



WITNESSES:

H. F. Gerts
J. D. Dyer

INVENTOR:

T. N. Henderson
per
Wm. S. Sprague
attorney.

United States Patent Office.

THOMAS N. HENDERSON, OF JACKSON, MICHIGAN.

Letters Patent No. 89,661, dated May 4, 1869.

IMPROVEMENT IN POTATO-DIGGERS.

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

To whom it may concern:

Be it known that I, THOMAS N. HENDERSON, of Jackson, in the county of Jackson, and State of Michigan, have invented a new and useful Improvement in Root-Excavator and Cultivator; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a perspective view of my invention.

Figure 2 is a perspective view of the same from the bottom, showing my method of operating the shaking-grate.

Like letters indicate like parts in each figure.

The nature of this invention relates to that class of implements employed in harvesting root-crops, like potatoes, and consists in a double point, to pass under the roots to be thrown out, said point being provided, at its two sides with vertical cutters, which also act as guides, to carry the earth and roots toward the centre and rear of the apparatus, where a vibrating or shaking-grate is provided, by means of which the earth is sifted out, and discharged beneath, while the roots are discharged in the rear, upon top of the ground, ready to be picked up.

A more particular description of my invention is as follows, viz:

Under plow-beam D, furnished with handles C C, an excavator, A B, is hung by braces firmly attached to it, and to the under side of said plow-beam, and at a suitable distance.

This excavator is composed of point A, with sides equal and alike, slightly curved inwardly at their front edges, and running upward at an angle of about twenty degrees, and backward about one-half of the distance from front to rear of the excavator, with decreasing curves, until the rear top end of said plow-point is a horizontal line, where it reaches the front end of grate I.

The sides B B of said excavator are vertical, firmly attached to the sides of plow-point A, rising above the rear top end of said plow-point, and loosely enclosing the sides of grate I, throughout its entire length, and provided with cutting front edges.

Movable grate I is composed of a suitable number of bars of metal, which are firmly attached, at their front ends, to roller K, which traverses in sides B B, and at the other end to a cross-bar, and lies immediately behind and close to the rear top end of plow-point A, and slopes a little to the rear.

L is a centre-piece, of metal, running back from the front of plow-point A, on the under side of it, and under grate I, the whole length of the excavator, and upon its rear end grate I rests.

Upon the side of centre-piece L, and near its lower centre, wheel E is pivoted, so that it traverses upon the ground at a point a little lower than the bottom of plow-point A.

Upon the outer face of wheel E are ratchet-pins F, three or four in number, which, in turning, trip, successively, the front end of lever G.

Lever G is pivoted, at its rear end, to lever H, which, in turn, is loosely pivoted to or extends under the rear end of grate I.

The revolution of wheel E, therefore, by means of ratchet-pins F, communicates to the rear end of grate I, through levers G and H, a constant shaking motion up and down.

In operating this machine afield, with a team attached, plow-point A passes under the hill or row of roots, which is guided, by sides B B, upon grate I, which shakes and sifts the earth, between the bars, to the ground, and throws the roots to the rear, upon the surface, ready for gathering.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Movable grate I, with its shaking-apparatus, and wheel E, ratchet-pins F, and levers G and H, constructed and operated substantially as and for the purpose aforesaid.

2. Also, in combination with above, plow-point A, sides B B, handles C C, and beam D, constructed, arranged, and operated substantially as and for above-named purpose.

THOMAS N. HENDERSON.

Witnesses:

JAS. I. DAY,
H. F. EBERTS.