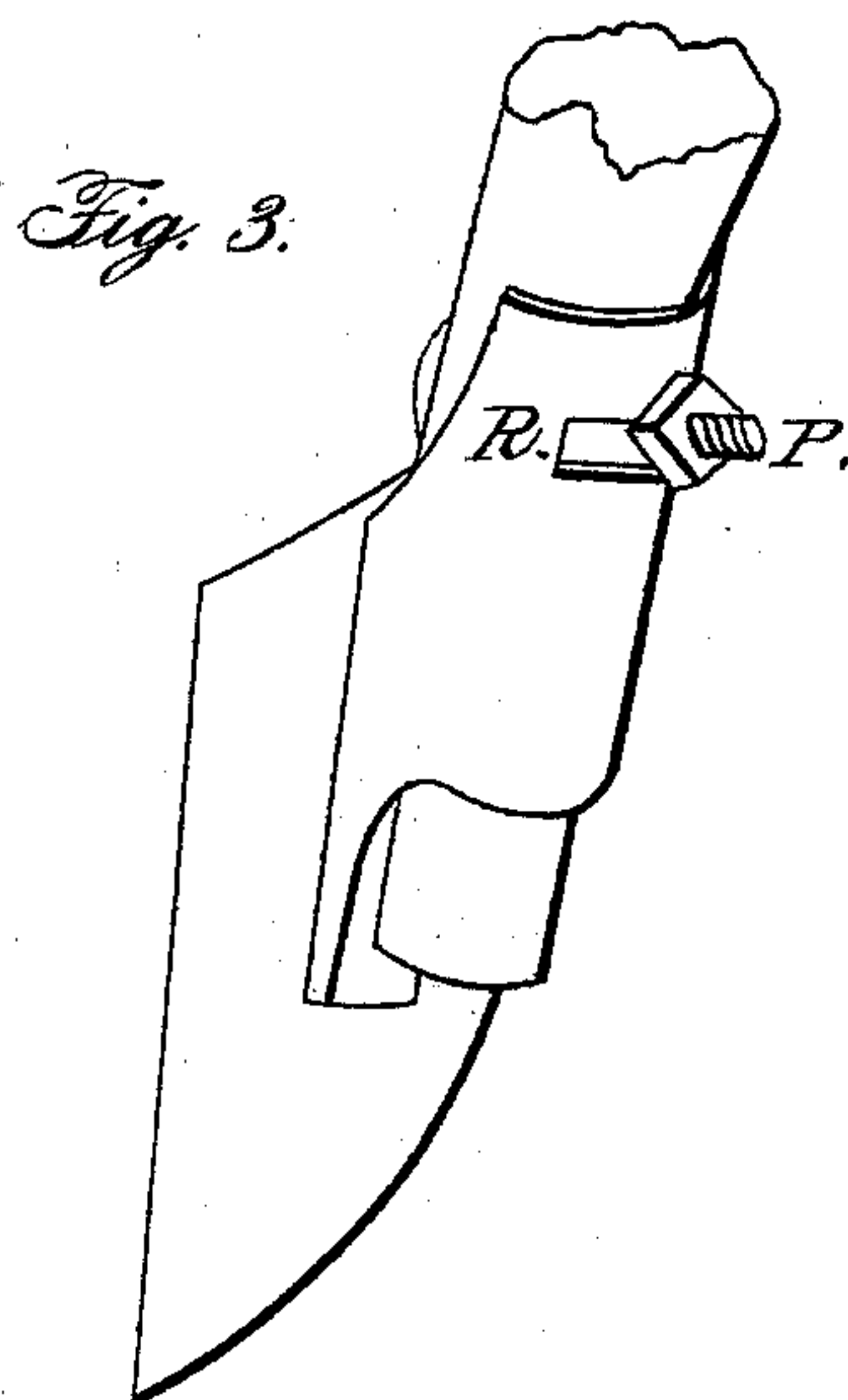
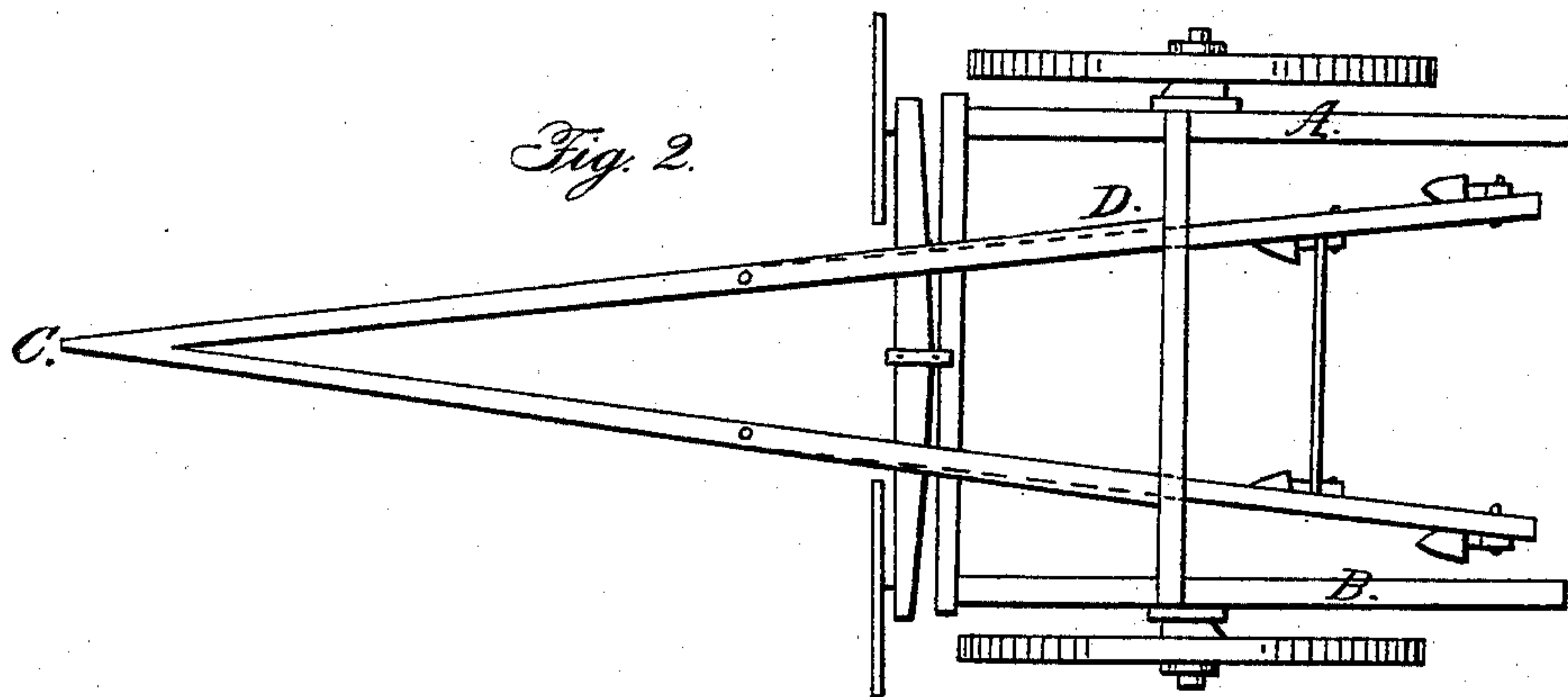
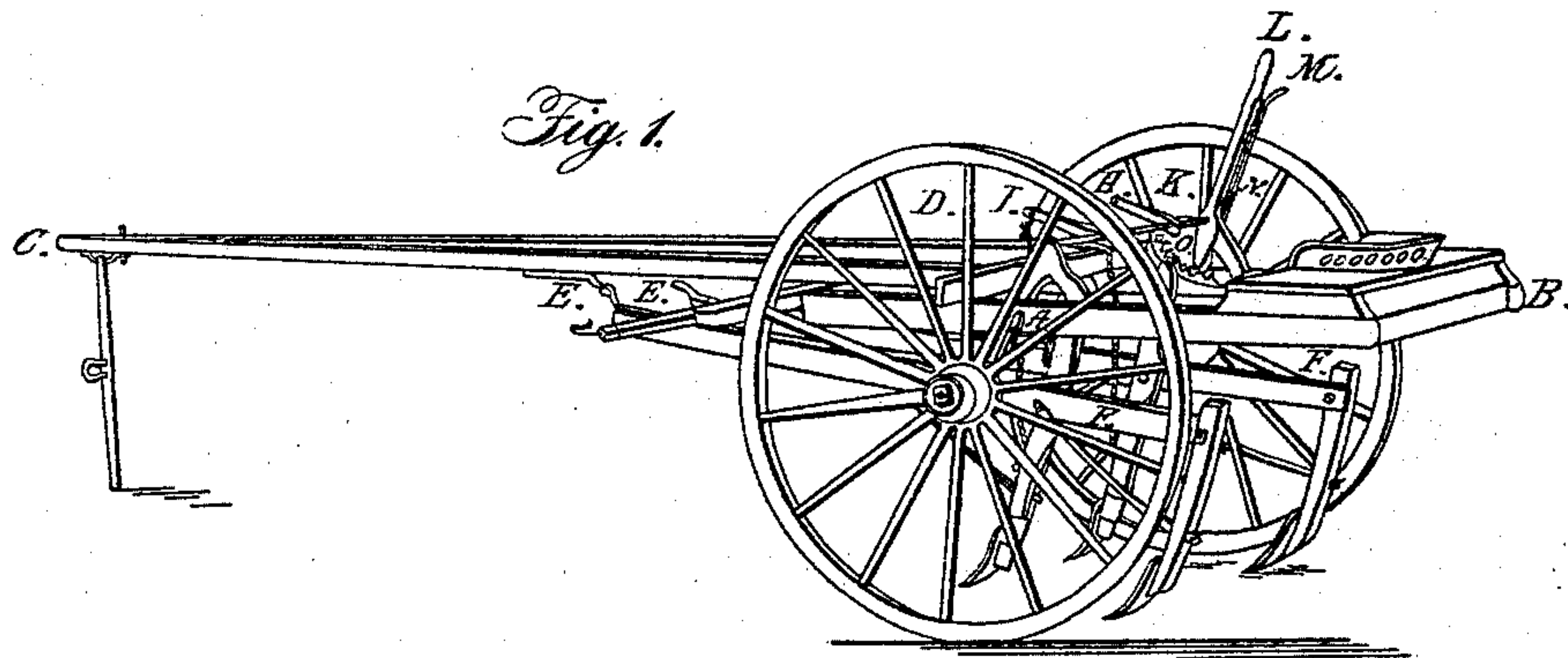


W. B. YOUNG.
Wheel Cultivator.

No. 68,679.

Patented Sept. 10, 1867.



Witnesses:

George Payson.
M. W. Robinson.

Inventor:

Wm B Young.

United States Patent Office.

WILLIAM B. YOUNG, OF CHICAGO, ILLINOIS.

Letters Patent No. 68,679, dated September 10, 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, WILLIAM B. YOUNG, of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view,

Figure 2 is a top or plan view of the cultivator, and

Figure 3 is a view of one of the ploughs, and the thimble and screw by which the plough is attached to the stock.

The object of my invention is to furnish a cultivator that, from the peculiar arrangement and conformation of its parts, shall possess, to a greater degree than any now in use, the advantages of simplicity, strength, durability, and ease of working, and at the same time perform its work in the best manner.

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

A B, figs. 1 and 2, is the main framework, supported by wheels, and furnished with a seat on which the driver may ride. This frame is supported, not in the usual mode, by one continuous axle, but to each wheel there is a separate short axle of iron that is bent upwards at right angles, and then attached to the frame by bolts or any suitable way. In order to give additional strength to this attachment the ends of these axles are split or divided in the form of the letter Y, as shown at A in fig. 1. Attached to this frame in the manner shown in the drawings, figs. 1 and 2, is the tongue C D, figs. 1 and 2. This tongue is split or divided its entire length, except for a small space where the ends are united in front. The plough-beams E F, fig. 1, are suspended at their front ends to the under side of the tongue by loose joints, as shown in the drawings, so made as to have both a lateral and vertical motion. They are supported behind by chains, the lower ends of which, however, are not attached directly to the beams, but to the plough-stocks, so as to allow greater freedom of lateral movement to the ploughs in avoiding the inequalities of the rows. The chains might be attached to the beams if desired, but I think the other arrangement preferable. The upper ends of the chains are attached to the outer ends of the levers H I, fig. 1, projecting from the rock-shaft K, which is worked by the lever L.

M N is a rod and spring, the lower end of the rod setting into the rack O, where it is kept by the pressure of the spring. When necessary to raise or lower the ploughs, the driver grasps the handle L of the lever, at the same time compressing the handle M of the spring, and then moves the lever back or forwards, as the case may be. On releasing the lever the spring forces the catch N back into the rack O, and the ploughs are thus retained in any position that may be wished. The forward plough-stocks are bolted to the inside of the plough-beams, and their upper ends are connected by a bow, one end of which is seen at A, fig. 1, on the front side of the plough-stock. This bow rises above the top of the main frame so as to clear the corn. The hind plough-stocks are bolted to the outside of the plough-beams, as shown at F, fig. 1. The ploughs are fastened to the stocks by means of a thimble and screw, as shown in fig. 3. This thimble is slipped on over the rounded end of the stock, and is kept in place by the screw P. When it is desired to change the position of the plough, so as to throw the earth more to or from the plants, the screw is loosened and the thimble slipped round one way or the other, the screw-bolt moving in the slot R. The plough-stocks are further strengthened and supported by iron rods running from near their lower ends to points forward on the beams. The remaining parts of the machine will be understood without further explanation.

The operation also is very simple. The driver sits with his feet on the plough-beams, which he is thus able to swing easily from side to side to follow the inequalities of the rows. If he wishes to change the depth of the ploughs, or to raise them entirely from the ground, he can do this, as already explained, by the lever and spring-catch operating on the rock-shaft.

The advantages of this cultivator are, first, the shortness and compactness of the whole machine, by which it is rendered far more manageable and more easily turned; second, though the whole machine is so short the plough-beams are unusually long, and, as will readily be seen, are more easily turned to the right or left on this account; third, the plough-beams having their points of attachment out of the line of motion of the ploughs,

and being connected with each other by the iron bow, will tend to draw continually towards each other, and thus their motion will be made remarkably steady. In the drawings this point of attachment is insied the line of draught, but if outside the same effect of steadiness would be produced, though I think not in quite the same degree.

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

1. The combination, in a straddle-row cultivator, of the main frame, split tongue, jointed plough-beams, and wheels.
2. The combination of wheels and jointed plough-beams in a straddle-row cultivator, the beam on each side having its joint or point of attachment out of the line of motion of its set of ploughs.
3. The combination, in a straddle-row cultivator, of wheels, double-trees, whiffle-trees, jointed plough-beams, and frame, when the plough-beams are jointed forward of the whiffle-trees.

WM. B. YOUNG.

Witnesses:

GEORGE PAYSON,
M. W. ROBINSON.