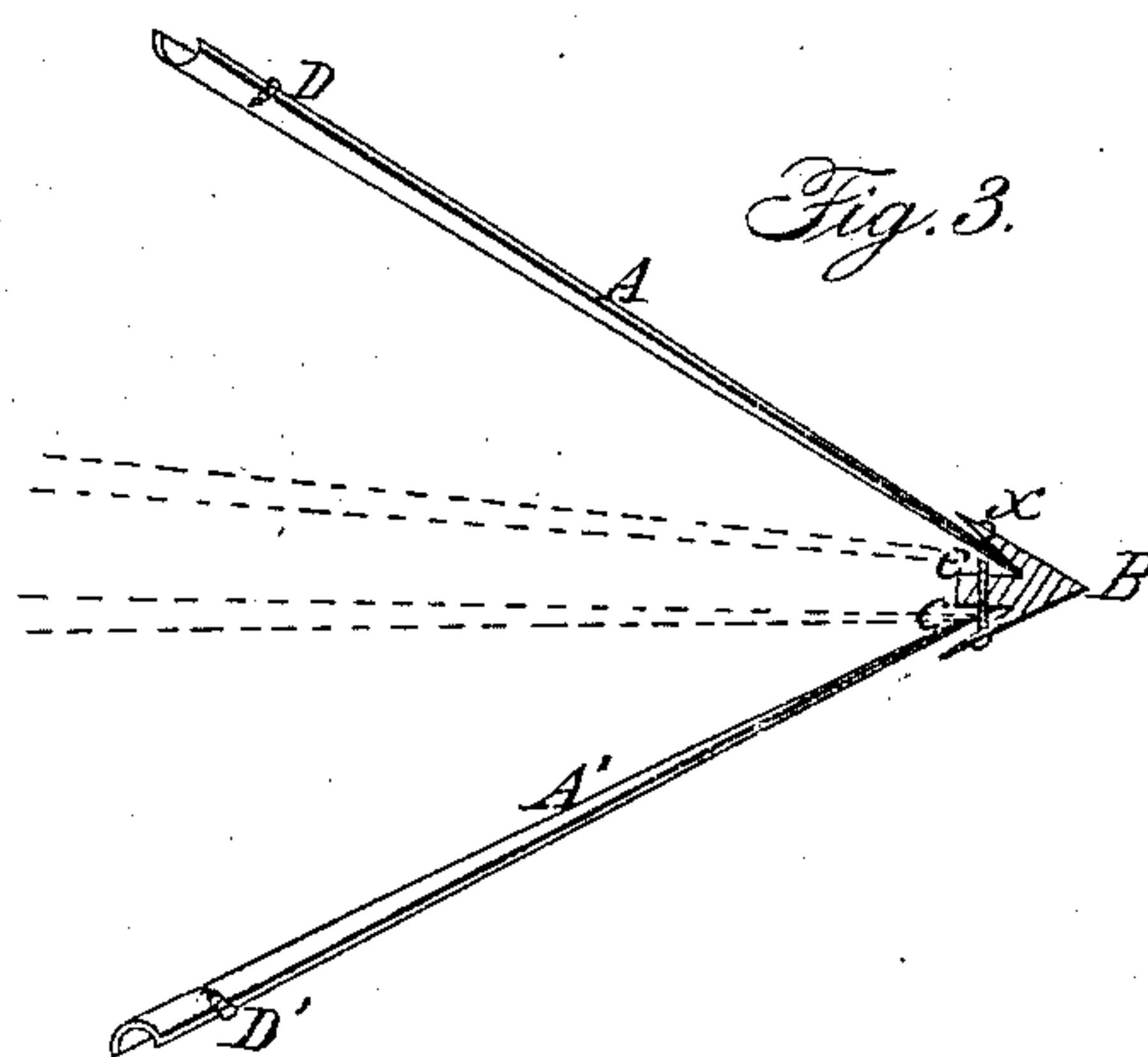
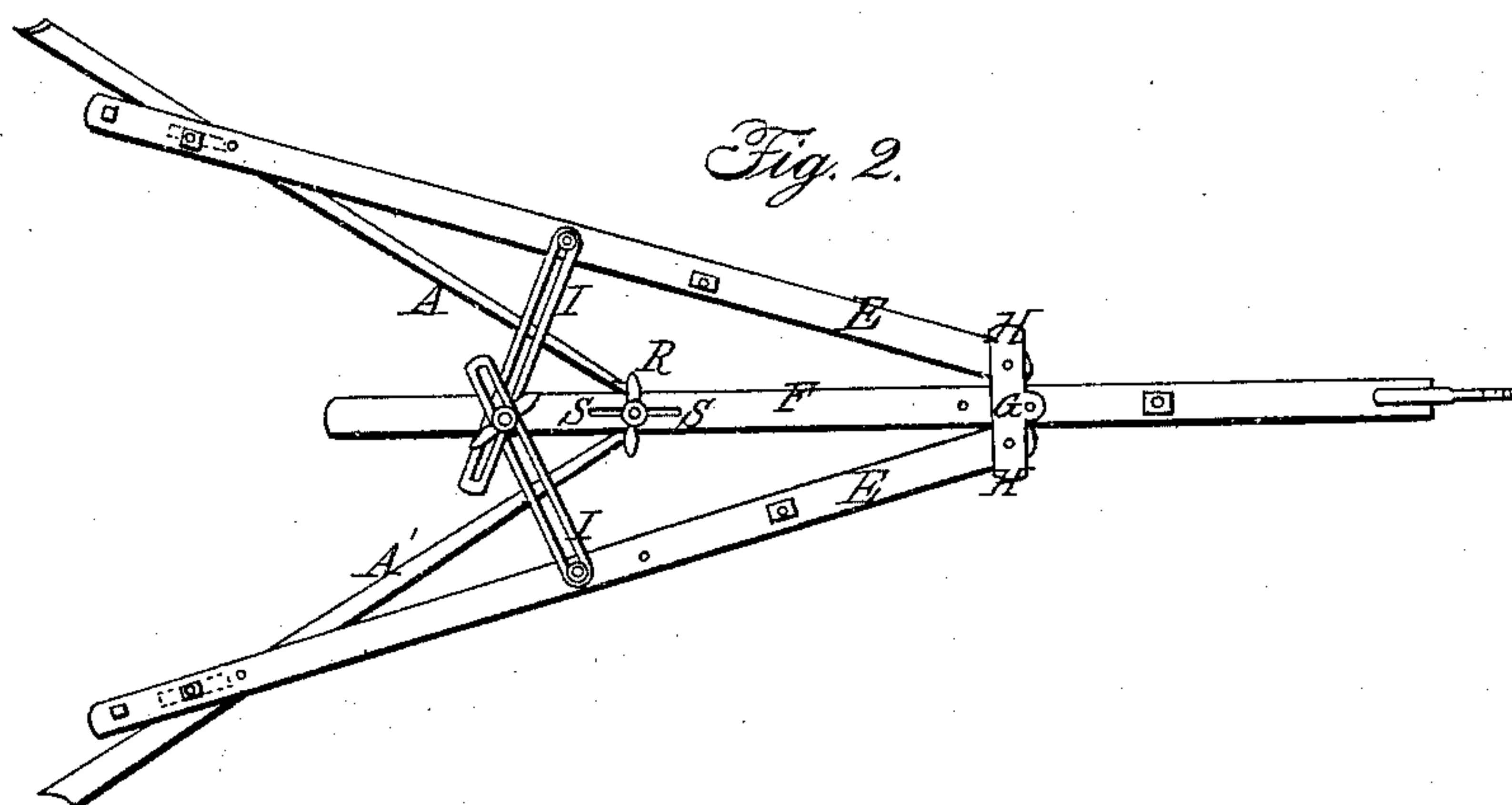
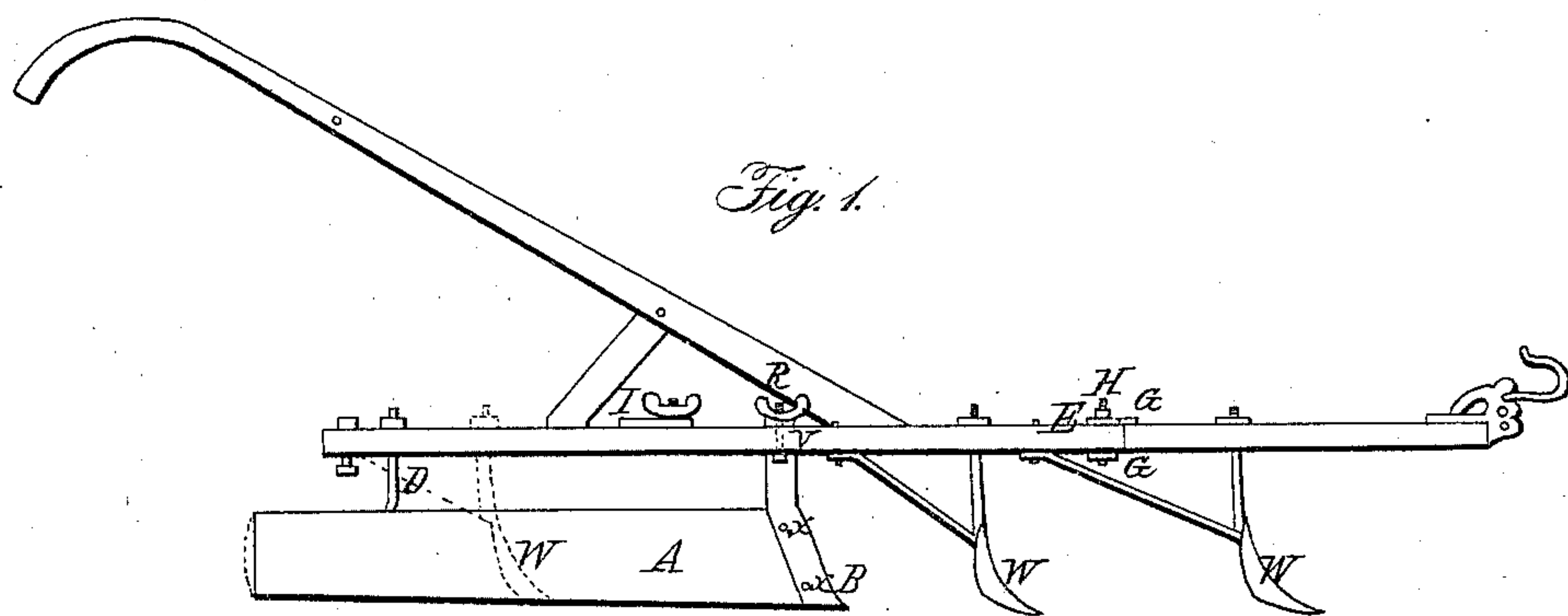


W. D. NICHOLS.

Cultivator.

No. 57,952.

Patented Sept 11, 1866.



Witnesses:

J. G. Howell
P. S. Crawford

Inventor:

William D. Nichols

UNITED STATES PATENT OFFICE.

W. D. NICHOLS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CULTIVATOR-PLOWS.

Specification forming part of Letters Patent No. 57,952, dated September 11, 1866.

To all whom it may concern:

Be it known that I, WILLIAM D. NICHOLS, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Cultivator-Plow; and I do hereby declare that the following is a true and full description of the said invention.

Figure 1 is a side view. Fig. 2 is a top view. Fig. 3 is a sectional view.

A A are two mold-boards of suitable length and width to accomplish the object desired, and made of such form at the rear or diverging ends as to throw the earth in rows, and at the same time pass through the earth with ease. These mold-boards are connected at the forward or converging ends by the plow B, which has grooves C C in the back side to receive the ends of the mold-boards. These grooves C C are made of such size as to give the mold-boards a swinging or hinge motion.

Bolts x x pass through the plow B and the ends of the mold-boards A A, thus making the joint complete. These mold-boards can be attached to the plow B or to each other in any other convenient manner to give them a hinge motion.

The rods D D', being attached to the mold-boards near their rear ends, pass above and form supports to attach to a frame. In order to make this device useful, it must be attached to a frame of wood or other material, as shown in Figs. 2 and 1. This is done by framing two suitable pieces of timber, E E, with the center piece, F, by means of the plates G G, being placed one above and the other below the timbers, and putting the pins H H through the plates and timbers, thus forming a hinge-joint. Their opposite ends are attached to the center piece by means of the guides or stay-rods I I, which have a slot in their centers, through

which a bolt passes. By turning the thumb-screw R down, it compresses the stay-rods I I firmly together.

Through the center piece there is a slot, S, cut of a suitable size to allow a bolt, V, to pass through it and the top of the plow B. This holds the forward part of the plow firmly to the frame.

The rods D D pass up through the outside frame and are held firmly by nuts. By loosening the stay-rods I I and the thumb-screw R, the rear end of the frame (consequently the mold-boards too) can be brought nearer together or widened, adjusting themselves to the width of the rows being cultivated. If the rods D D are stationary in the outside frame, the bolt V will slide in the slot S as you change the angle of the mold-boards; but the bolt V can be stationary in the center piece by making slots o o' in the frame E E' for the rods D D' to slide in.

These plows can be attached to an ordinary cultivator, as shown in Fig. 1, by removing the two rear shovel-blades, W, retaining the front shovel-blades to break up the ground, or they can be used independent of any other shovels.

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

1. Connecting the mold-boards or plows A A with a hinge-joint, substantially as described.
2. The slot S or its equivalent, in combination with the mold-boards or plows, substantially as described.

WILLIAM D. NICHOLS.

Witnesses:

CHAS. H. BARNUM,
U. LOEBIHL.