

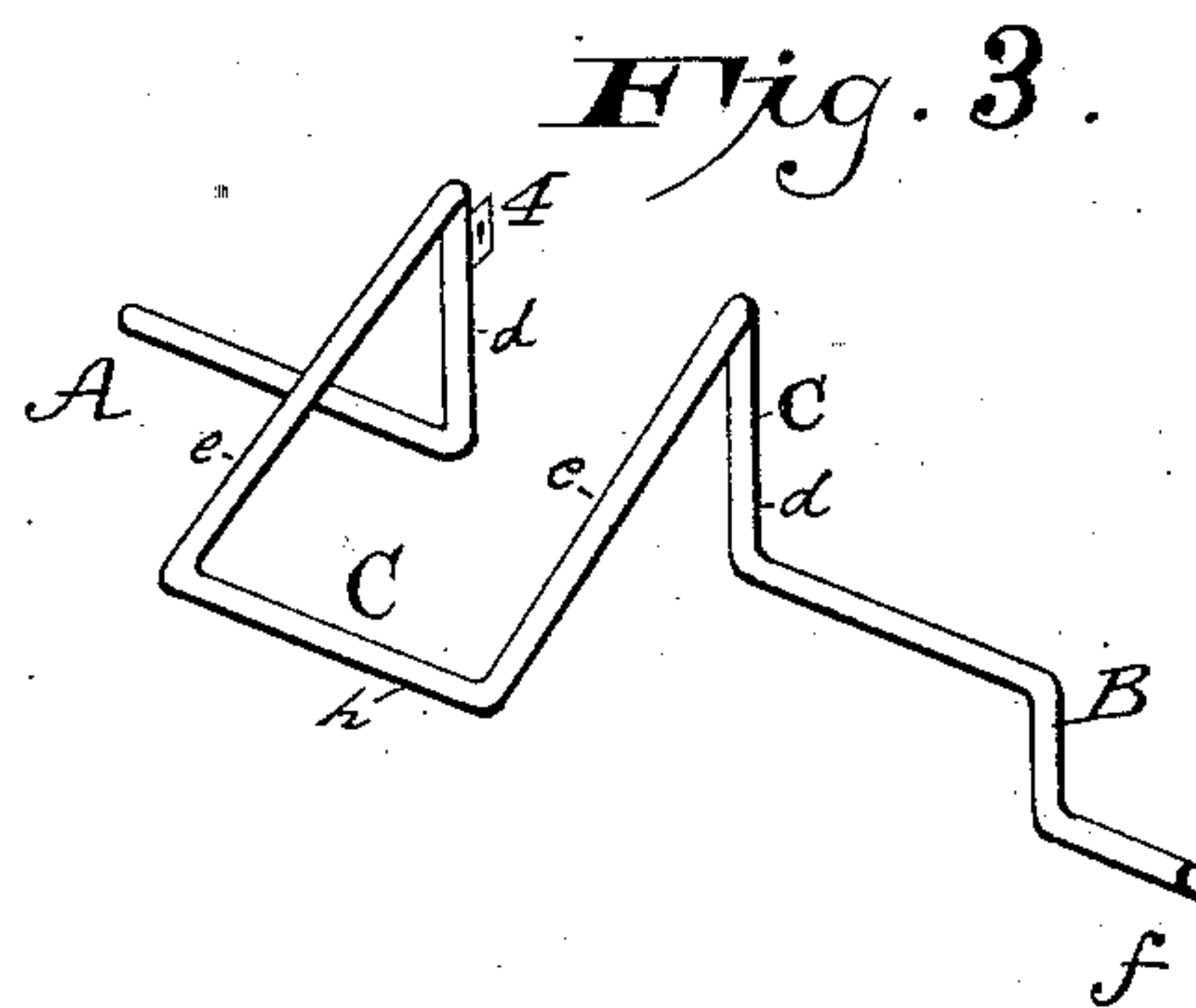
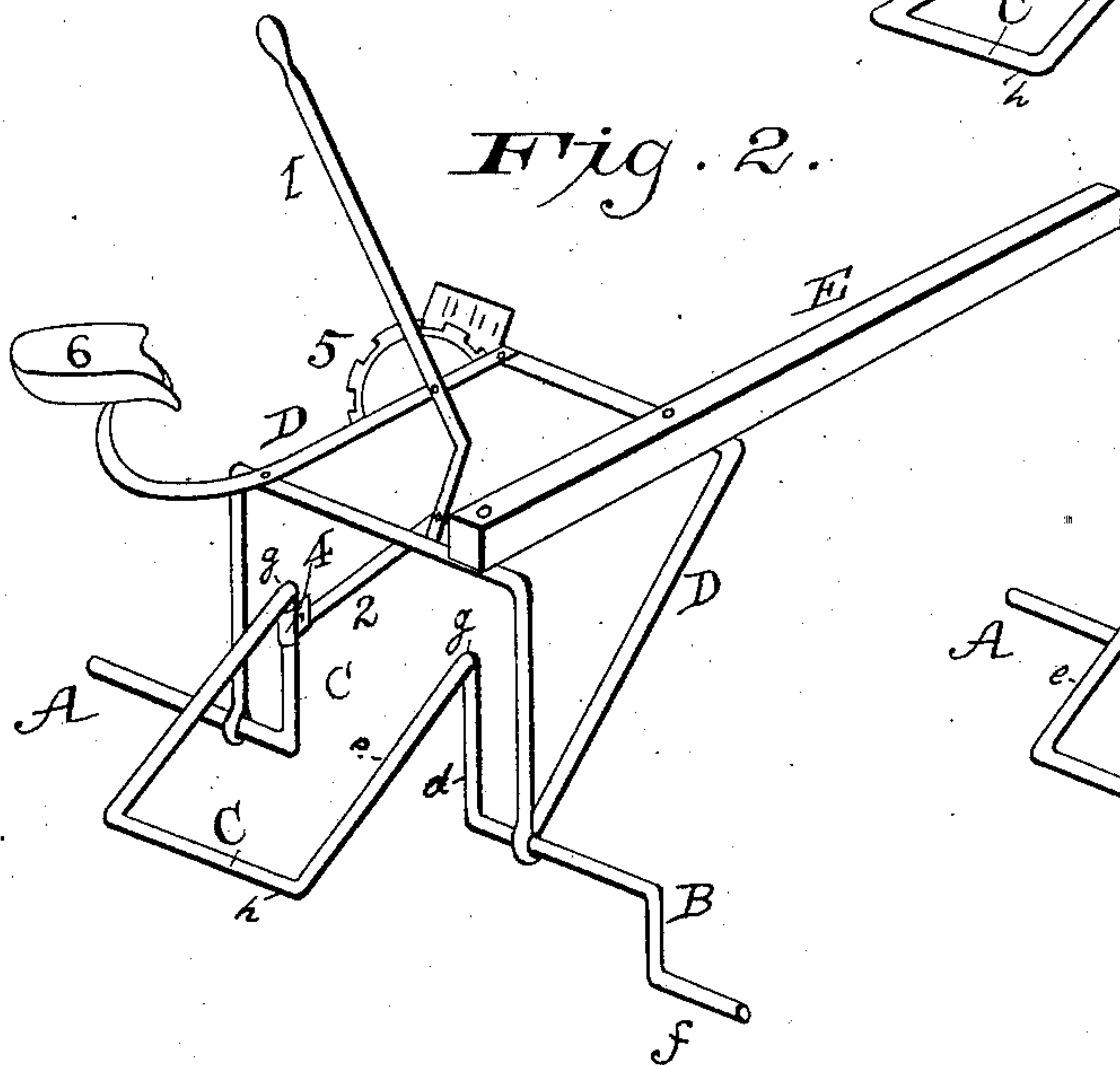
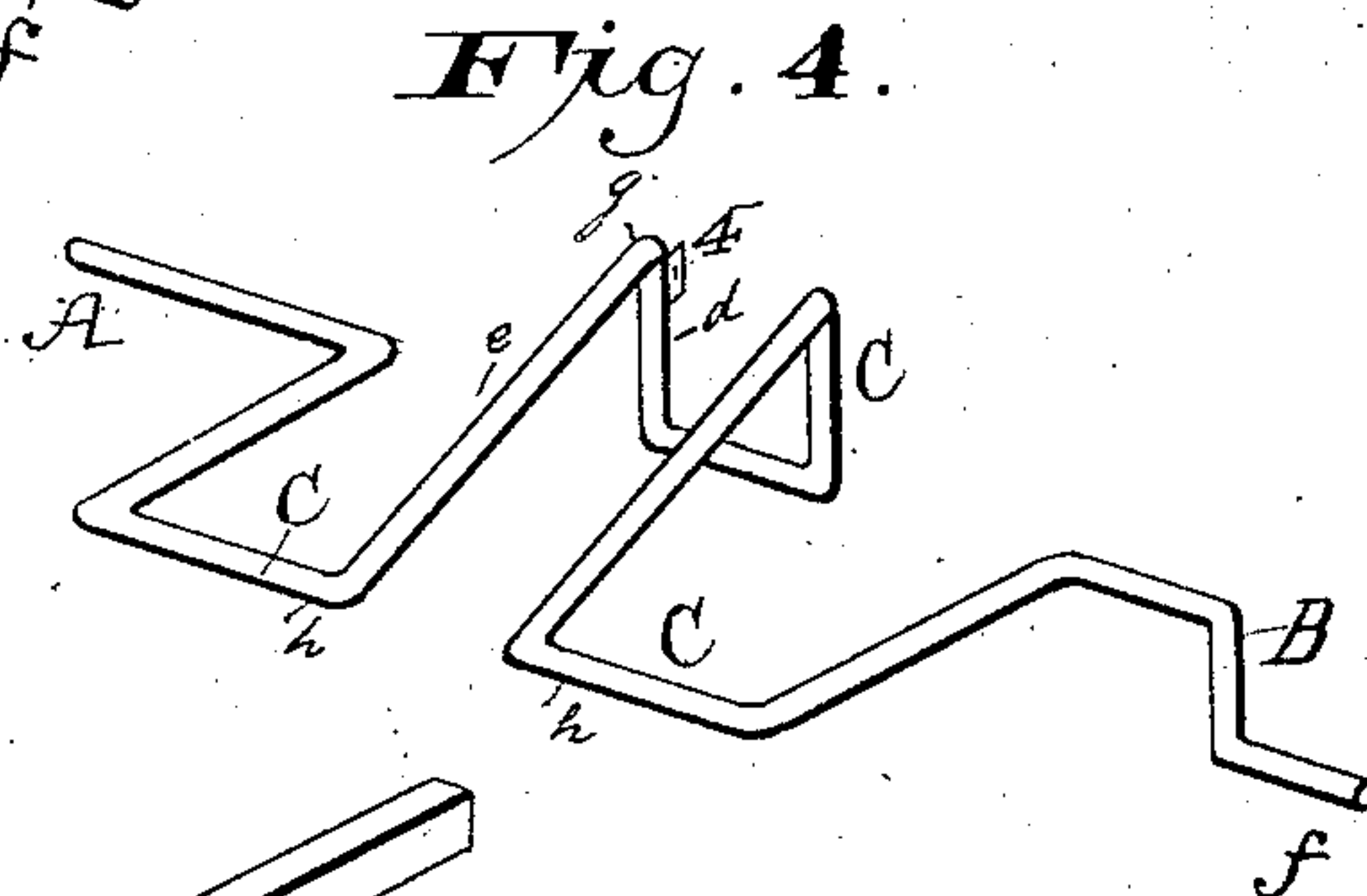
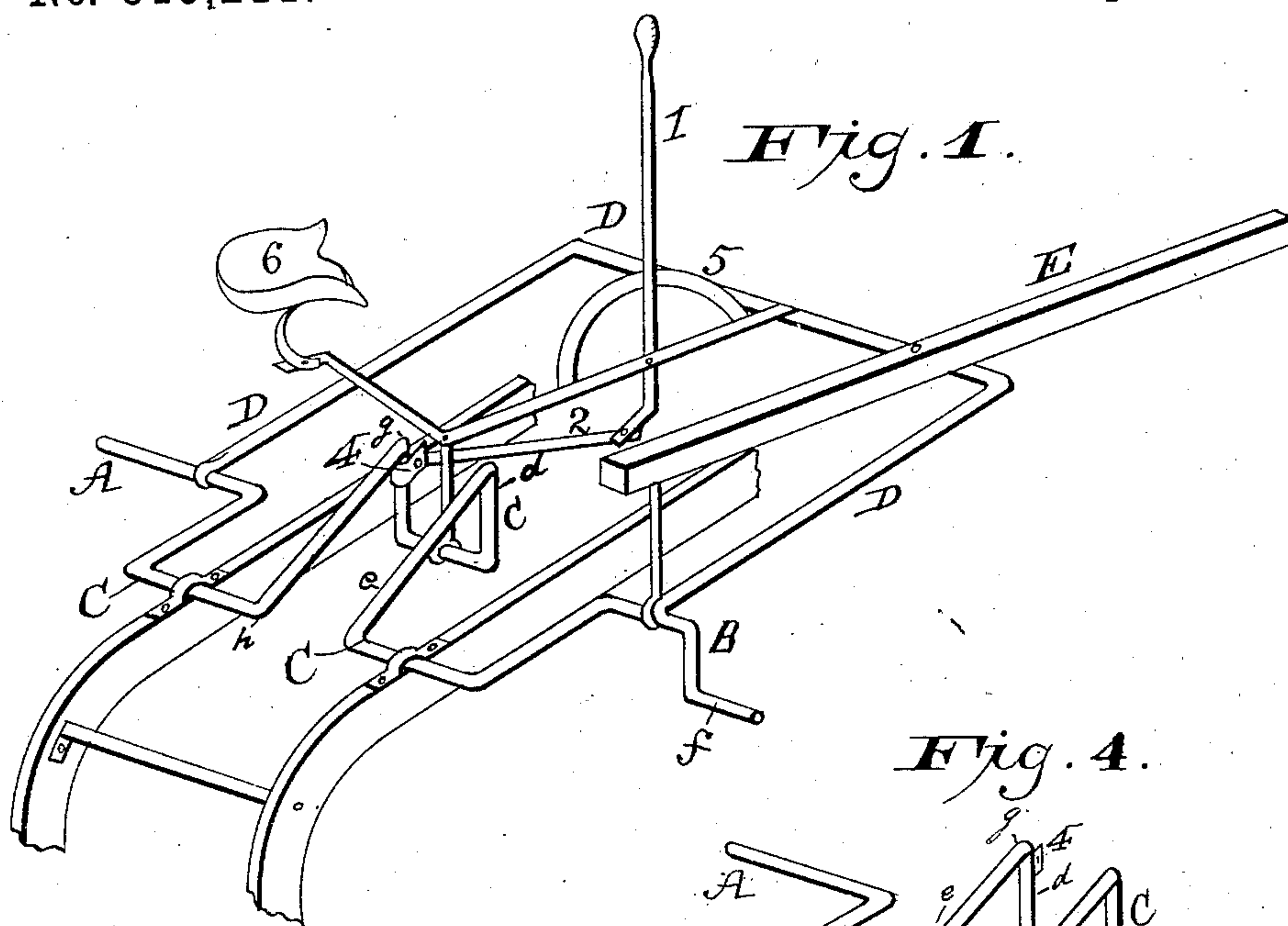
(No Model.)

G. W. AKINS.

WHEEL PLOW.

No. 315,211.

Patented Apr. 7, 1885.



Witnesses:

*W. Burnham*

*A. J. Willard*

Inventor:

*George W. Akins.*

*By A. Bell.*  
*att'y.*

# UNITED STATES PATENT OFFICE.

GEORGE W. AKINS, OF NASHVILLE, ILLINOIS.

## WHEEL-PLOW.

SPECIFICATION forming part of Letters Patent No. 315,211, dated April 7, 1885.

Application filed June 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. AKINS, a citizen of the United States, residing at Nashville, county of Washington, and State of Illinois, have invented a new and useful Improvement in Wheel-Plows, of which the following is a specification.

My invention relates to an improvement in the axle-bar of wheel-plows and the attachment of the operating-lever thereto, whereby the plow or plows supported by the axle crank or cranks are more readily raised and lowered than by the methods now in use.

Figure 1 represents the frame of a wheel-plow with my improved axle having a pair of double cranks attached thereto. Fig. 2 represents the frame with my improved axle having one double crank attached thereto. Fig. 3 represents the axle formed with a single double crank for supporting plow-beam. Fig. 4 represents the axle formed with double cranks for supporting the plow-beams.

Like letters and figures refer to like parts.

The axle is preferably formed of one continuous bar having a straight spindle on a line with the axle for the land-side wheel, a crank-arm on the furrow side, a double crank or cranks so bent or curved as to present a point of leverage above the line of the axle when the plow is at the bottom of the furrow in ordinary plowing.

The operating-lever is connected with the bent double crank at 4, so that all the advantage of a projecting rigid lever-arm for operating the axle is secured without any of its accompanying disadvantages, increased cost of construction, and liability of breaking or becoming loosened.

It will be seen that by the construction of my improved axle the greatest possible strength, being the full strength of the axle-bar itself, with a more advantageous application of the leverage thereto, is secured.

A is the spindle on land side.

B is the crank-arm with spindle *f* on furrow side.

C is the double crank which supports the plow-beam, bent or curved above the line of the axle and at a proper distance therefrom, so as to present an advantageous point of leverage for the attachment of the lever-bar.

In practice I prefer that the bent portion of the double crank, which is between the point of lever attachment and the axle, should be vertical, or approximately so, when the plow is at the bottom of the furrow in ordinary plowing. The axle is rotated by means of lever 1 through link-lever 2, connected with the bent double crank at 4.

D is the frame, journaled on the axle-bar and supporting pole E and seat 6.

5 is the segmental rack-bar with which lever 1 engages. The continuous axle-bar C includes the several subordinate parts designated by other letters—as A, the land-side spindle; B, the furrow crank-arm, and *f* the spindle connected thereto; also, *d*, the upward-bent portion of said axle-bar, and *e* the portion bent downwardly therefrom at *g* to the line of the plow-support at *h*.

Fig. 1 represents the axle in the position assumed when plowing, the crank-arm B being depressed and the wheels in the furrow. When the plow is to leave the field, the lever 1 is drawn toward the driver, the plow being lifted by the elevation of the bent double crank C, and the furrow-wheel spindle is thereby brought to the level of the land-side spindle. This form of axle may be applied with equal advantage to a sulky or gang plow, the same function being performed by the bent double crank whether the leverage is applied to operate one or more in use.

What I claim as new and of my invention, and for which I ask Letters Patent of the United States, is—

1. In a wheel-plow, in combination with the wheels and frame, a continuous axle-bar having spindle A on its land side, crank-arm B and spindle *f* on the furrow side, a double crank having parts *d* and *e*, forming a bend or curve at *g*, and lever attachment at 4 near said bend, substantially as set forth and described.

2. In a wheel-plow having an axle with a double crank, said crank so bent as to form the parts *d* and *e*, in combination with the operating-lever and supporting-frame, substantially as set forth.

GEORGE W. AKINS.

Witnesses:

H. A. HALL,  
J. H. STEWARD.