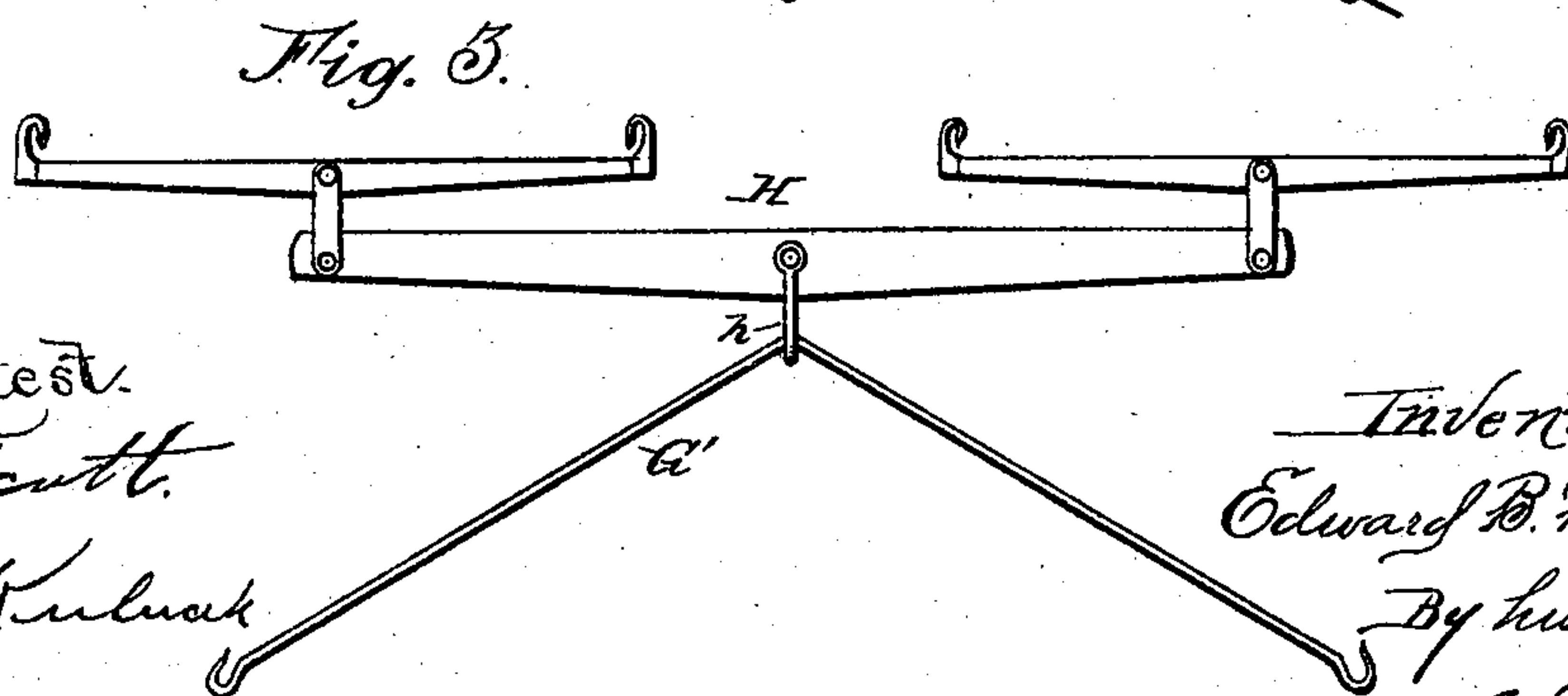
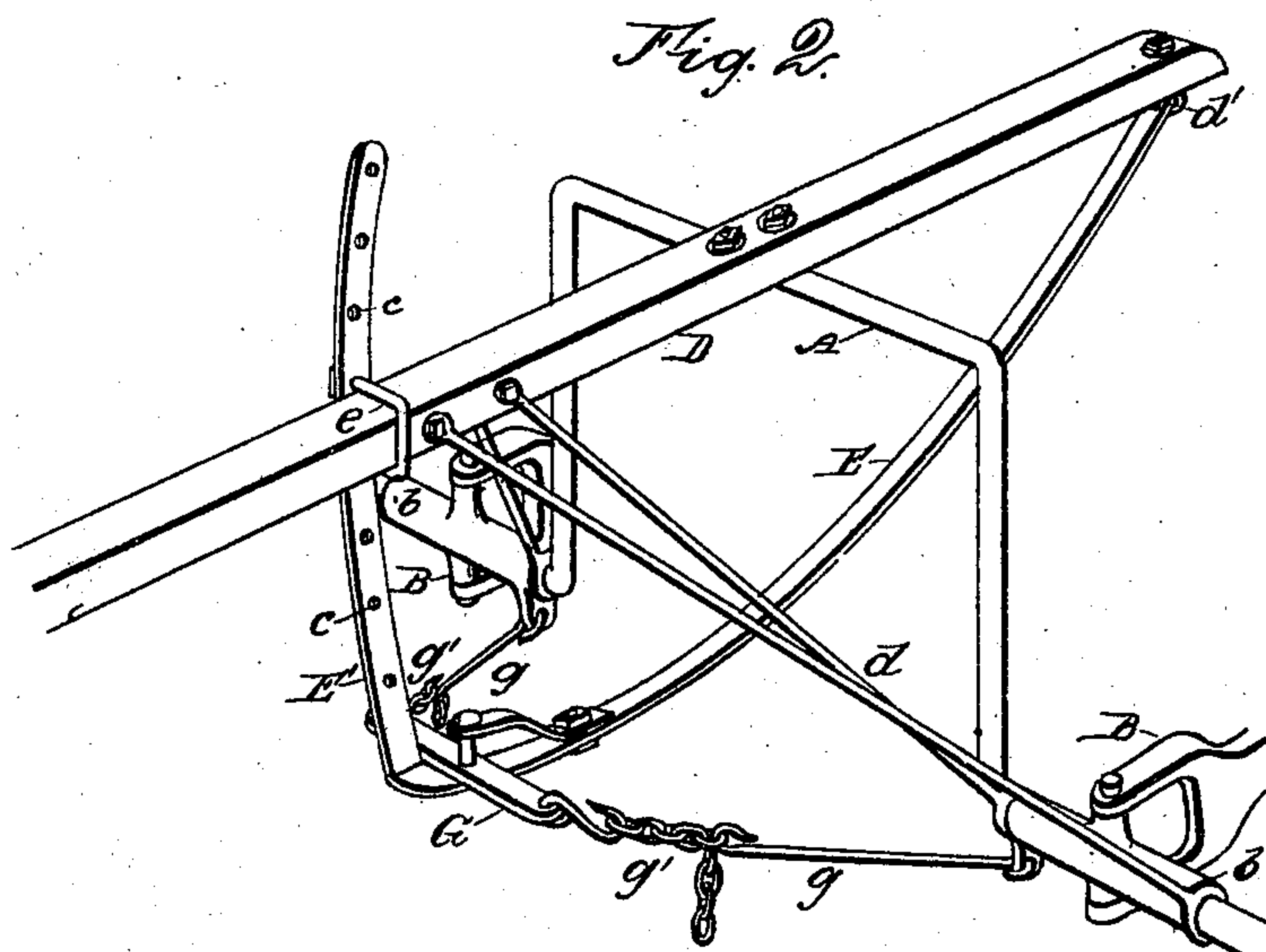
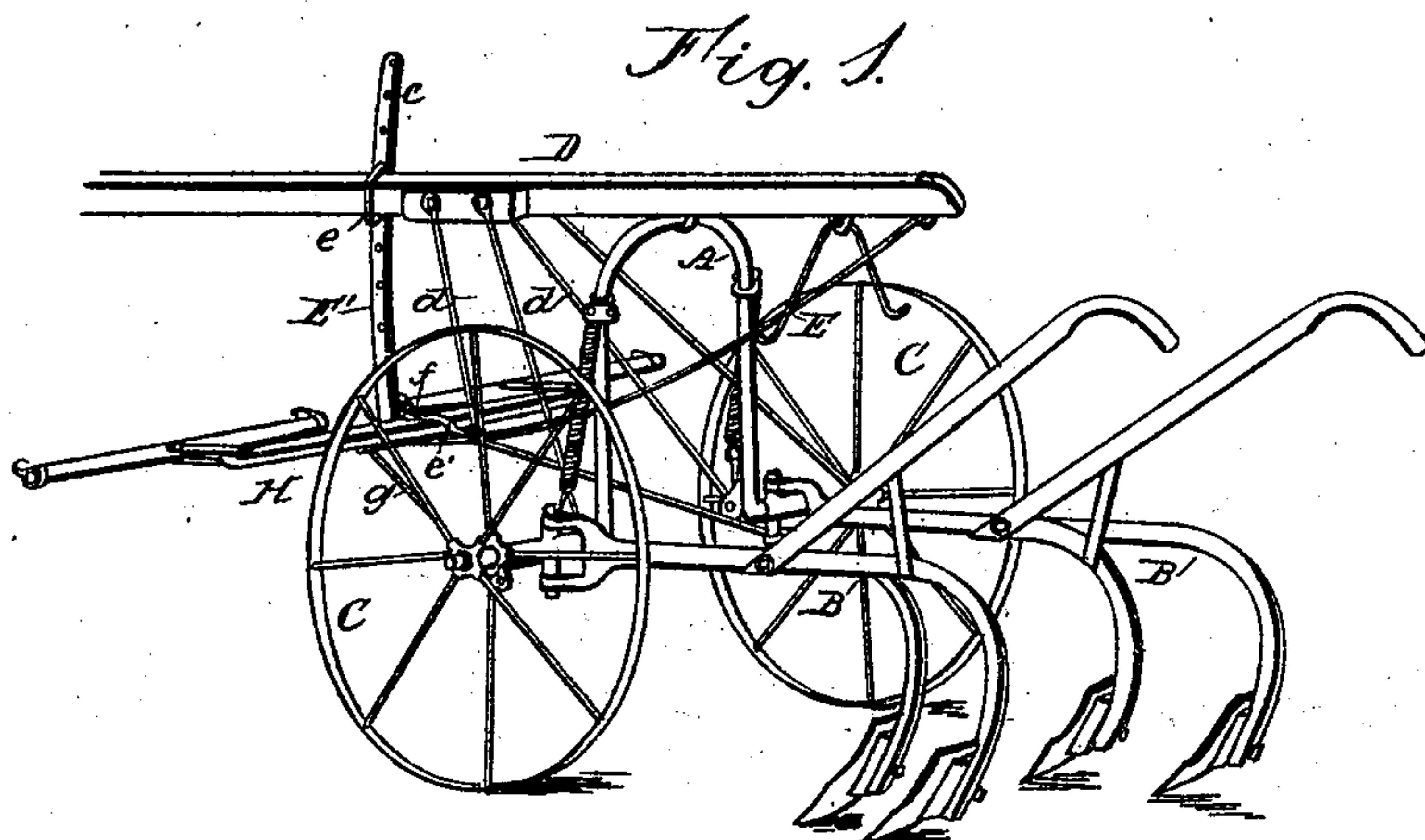


(No Model.)

E. B. PARKER.
DRAFT APPARATUS FOR CORN PLOWS.

No. 502,751.

Patented Aug. 8, 1893.



Attest.
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Geo. Kulmak

Inventor
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By his Atty.
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UNITED STATES PATENT OFFICE.

EDWARD B. PARKER, OF DELMAR, IOWA.

DRAFT APPARATUS FOR CORN-PLOWS.

SPECIFICATION forming part of Letters Patent No. 502,751, dated August 8, 1893.

Application filed July 28, 1892. Serial No. 441,463. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. PARKER, a citizen of the United States, residing at Delmar, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Draft Apparatus for Corn-Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to corn-cultivators drawn by two horses; and the object of the invention is to improve the construction of the draft apparatus so as to secure a direct connection with either the plows or the arch, or both, and insure a proper distribution of the draft between the two horses. These objects are attained by the use of devices hereinafter fully set forth and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a rear view in perspective of a cultivator having a draft apparatus embodying my invention attached thereto. Fig. 2 is a front view in perspective of the draft apparatus and connected parts of the cultivator. Fig. 3 shows a modification of the device connecting the whiffletrees with the plows.

Similar letters of reference indicate corresponding parts.

Referring now to the drawings, A is the arch; B B the plows, and C C the wheels of a double, or straddle-row cultivator, of a common type, which need not be more particularly described. To this arch is secured in the usual way a tongue D, with braces *d d* extending to the axles, to give the frame proper rigidity. It will be seen that the tongue is extended back of the arch quite a distance. To the rear end of the tongue is suitably connected, as by an eye-bolt *d'*, a coupling-bar E. The forward portion E' of this bar turns upwardly and is attached to the tongue by a stirrup *e*, which in practice I make a little wider than the vertical thickness of the tongue, so that the latter may vibrate therein to a limited extent, as is desirable in use. The bar is provided near the forward angle with a hammer-strap *e'* and bolt *f*, whereby the eveners of the whiffletrees H is attached to it.

This gives, as will be seen, direct connection with the arch or frame of the cultivator.

The connection of the whiffletrees with the plows is through the medium of a device in the nature of a bail, and is illustrated most clearly in Figs. 2 and 3. The simple bail shown in Fig. 3 is more especially adapted for use without the coupling bar, being hooked, or otherwise suitably connected with the front ends of the plows, or, what amounts to the same thing, the box or axle to which said plows are pivoted. The connection of the bail with the whiffletrees is by a common clevis *h*. In practice, however, I prefer to connect the whiffletrees with both the plows and the frame, as shown in Fig. 2. This I do by means of an adjustable bail, composed of a short cross-bar G, centrally attached to the coupling-bar by the bolt *f* passing through the eveners, and terminal connecting devices *g g g' g'*. These, as shown consist of hooked rods connecting with the boxes *b b* to which the plows are hung, and sections of chain *g' g'*, connecting with the cross-bar G. This admits of the connection being varied in length to correspond with the varying position of the coupling-bar, which, by means of the holes *c c* and the stirrup fitting the same, may be depressed for use when the plants are small, or elevated nearly as high as the tongue when they are large.

It will be understood that the cross-bar G has no connection with the eveners of the whiffletrees, which swings free of the bolt *f*. The draft is thus equalized, and each horse is made to draw his due amount of the load; or, if it is desired to favor one horse, the same may be done in a common and well known way, by shifting the eveners a little on the coupling bolt, or the like.

The operation of the device will now be clearly understood. Draft applied to the whiffletrees is brought to bear directly on the plows through the bail, and on the arch, through the coupling bar. The practical result is that the plows run very steadily, there being no irregular forward and backward motion of the respective plows according to the action of the horses, as where there is a separate connection by the singletrees. This irregular, see-saw motion tends to throw the

plows out of proper alignment, and makes it necessary to hold them to prevent their running into the corn-rows. But by the use of the device described I am able to plow corn
5 continuously and to an indefinite extent without touching the plow-handles.

Having thus described my invention, I claim—

10 The combination with a corn-cultivator, of the tongue extended back of the arch, a coupling-bar attached at one end to the rear extension of the tongue, and having a vertically adjustable portion at the forward end, with

means substantially as described for connecting the same with the tongue, whiffletrees connected therewith by an evener, and an adjustable bail centrally secured to the cross-bar and terminally connected with the front ends of the plows, substantially as described. 15

In testimony whereof I affix my signature in 20 presence of two witnesses.

EDWARD B. PARKER.

Witnesses:

W. W. WILLEY,
R. C. HOWELL.