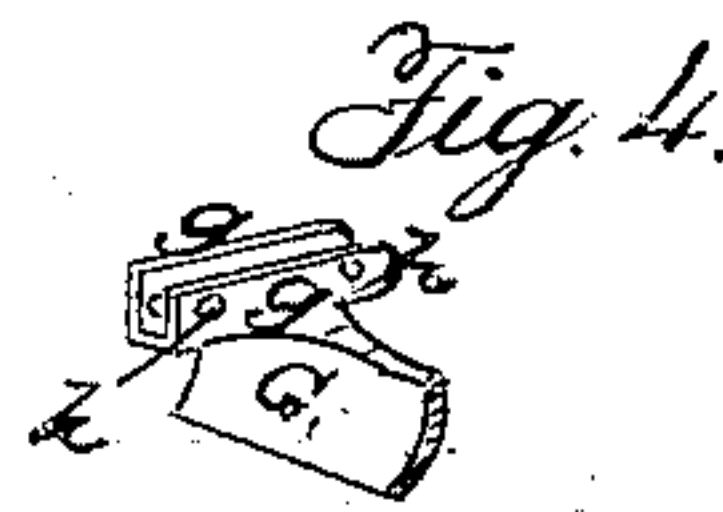
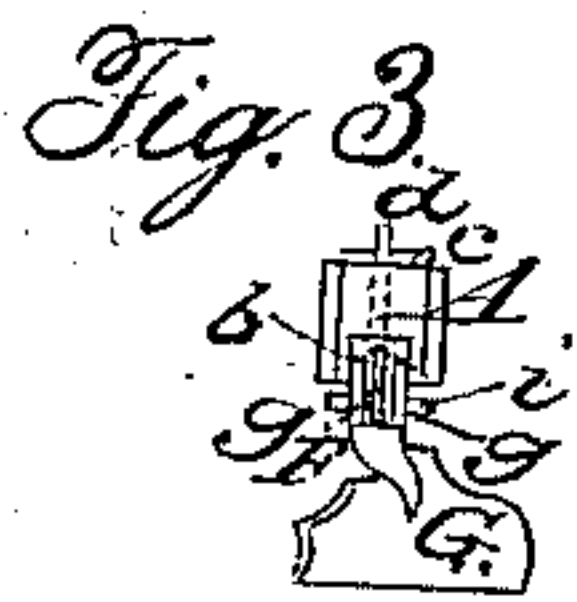
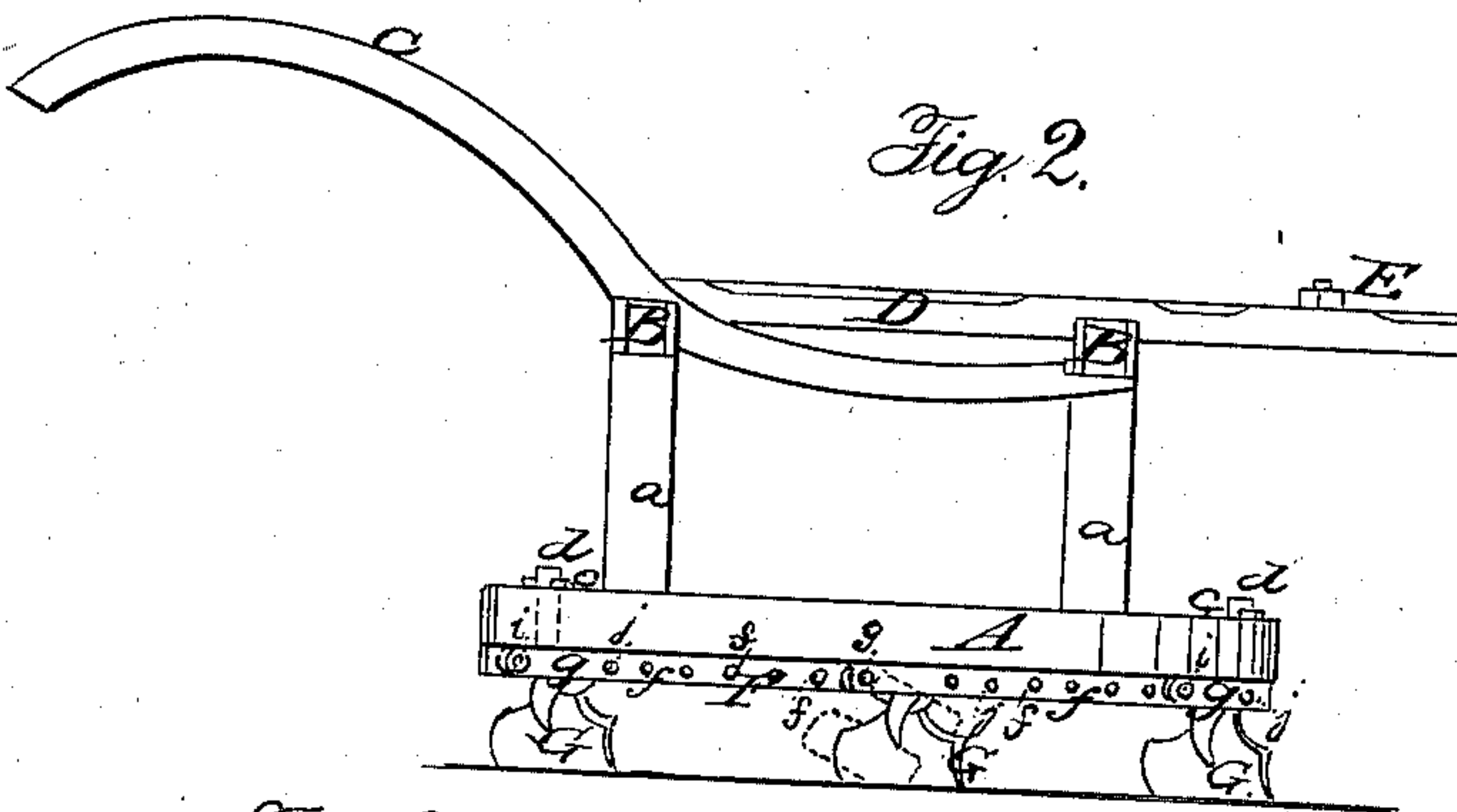
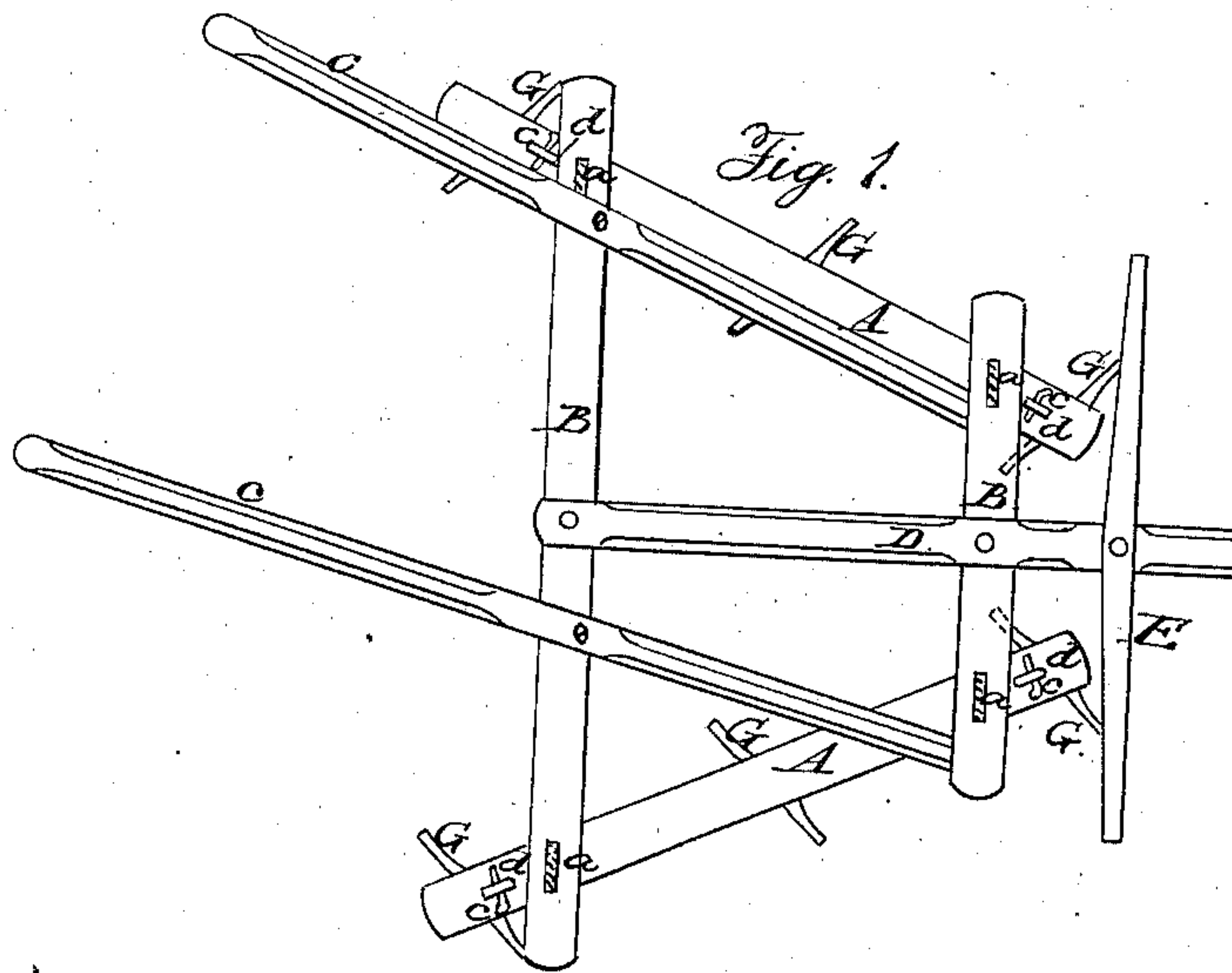


G. LECHTENTHALER.

Cultivator.

No. 11,379.

Patented July 25, 1854.



# UNITED STATES PATENT OFFICE.

GRIFFITH LICHTENTHALER, OF LIMESTONEVILLE, PENNSYLVANIA.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 11,379, dated July 25, 1854.

*To all whom it may concern:*

Be it known that I, GRIFFITH LICHTENTHALER, of Limestoneville, in the county of Montour and State of Pennsylvania, have invented a new and Improved Cultivator; 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 plan or top view of my improved machine. Fig. 2 is a side view of the same. Fig. 3 is a back view of one of the beams and a share attached to it. Fig. 4 is a detached perspective view of a share.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved cultivator; and it consists in the peculiar manner of attaching the shares to the beams, whereby the shares may be readily adjusted to the beams, and also allowed to yield or give to any obstructions with which they may come in contact.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A represent two beams, secured in an oblique position by cross-ties B B, which are attached to uprights *a* on the beams. The oblique position of the beams gives the usual triangular or harrow shape, the front ends of the beams being nearer together than the back ends. (See Fig. 1.)

C C are the handles or stilts attached to the cross-ties, and D is a reach secured to the cross-ties, and having a swivel-tree, E, attached to its outer end.

In the under surface of each beam A there is a longitudinal groove or recess, *b*, (see Fig. 3,) in which a metallic strip, F, is fitted and secured therein by wedges or keys *c*, which pass through projections *d*. The projections pass upward from the strips F through the beams A, the wedges or keys being driven through eyes in the projections above the beams. (See Figs. 1, 2, and 3.) Each strip F is perforated with holes *f*, as shown in Fig. 2.

The shares, Figs. 1, 2, 3, and 4, are represented by G. Each share has a socket formed of two lips, *g g*, both of which are shown in

Figs. 3 and 4. The sockets, it will be seen, are at the upper ends of the shares, and have holes *h h* through them, both holes being seen in Fig. 4.

The shares G are secured to the beams A by placing the lips *g g* in the grooves or recesses *b*, the strip F fitting between the lips, (see Figs. 2 and 3,) and inserting a metal pivot or pin, *i*, through the hindermost holes of the lips and through a corresponding hole, *f*, in the strip. Wooden pins *j* are passed through the front holes of the lips and through corresponding holes, *f*, in the strips, also shown in Fig. 2.

The body of the shares are set nearly at right angles with the beams A A, as shown in Fig. 1, and the dirt is thrown by the shares as the machine is moved along toward the center of the machine. (See Fig. 1.)

In case of the shares meeting with any obstruction—such as a root, stump, stone, &c.—the pins *j*, being formed of wood, will break, and the shares G will turn backward the metal pins *i*, being the fulcrum or pivots, (see dotted lines, Fig. 2,) the pin of one share being broken and the share forced back. By this arrangement the machine is prevented from being broken, or any of its parts wrenched or torn by sudden stoppages, owing to obstructions, and the shares, by means of the sockets at their upper ends and the perforated strips F, may be readily adjusted to the beams. Shares of different forms may also be applied with the same facility, provided they have the sockets at their upper ends.

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

The method herein shown and described of attaching the shares G to the beams A—viz., having metal strips F, perforated with holes *f*, secured to the under sides of the beams A, and sockets formed of two lips, *g g*, made at the upper ends of the shares and perforated with holes *h h*, in which holes *h* and in the holes *f* in the plates E wooden pins *i j* are passed, securing the shares to the beams, as set forth.

GRIFFITH LICHTENTHALER.

Witnesses:

JOSEPH GIBSON,  
DANIEL GONGEE.