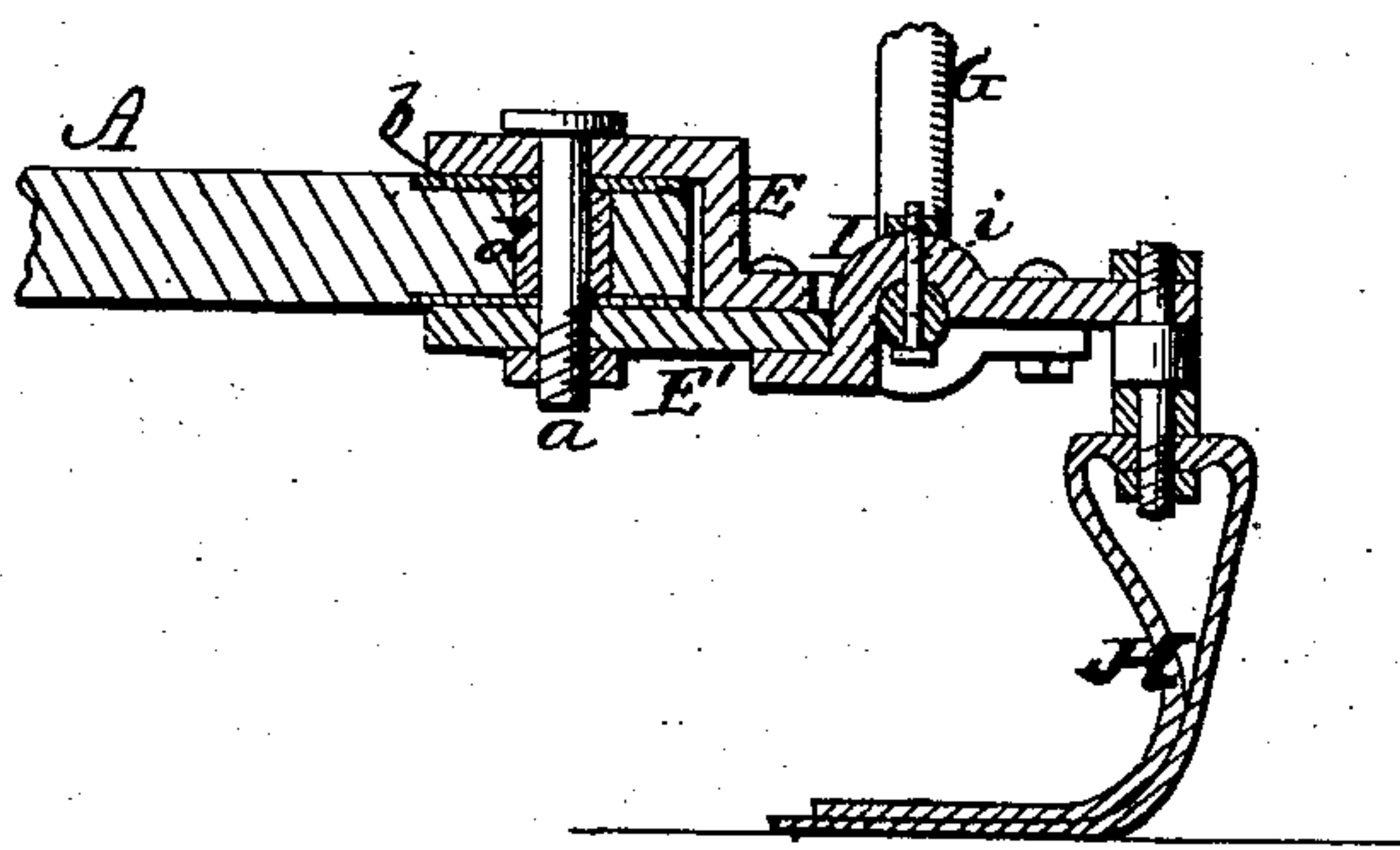
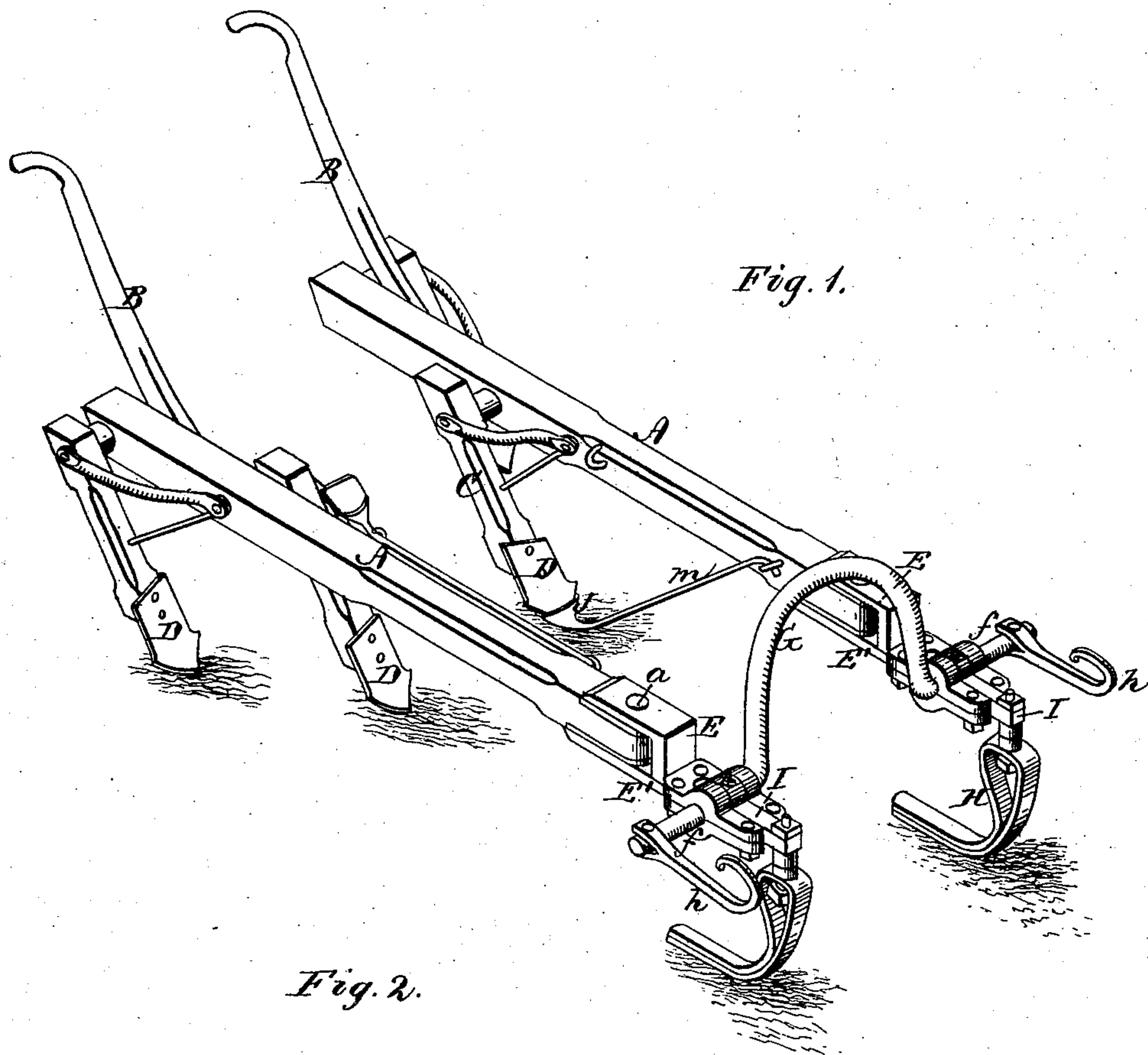


J. MARKEE & W. E. SPICER.  
Cultivators.

No. 157,014.

Patented Nov. 17, 1874.



WITNESSES

Henry N. Miller  
L. L. Ewert,

INVENTOR

Jesse Markee  
Wm E. Spicer,  
per Alexander Mason  
and Geo. Buchanan Attorneys

# UNITED STATES PATENT OFFICE.

JESSE MARKEE AND WILLIAM E. SPICER, OF ALEDO, ILLINOIS.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **157,014**, dated November 17, 1874; application filed September 12, 1874.

*To all whom it may concern:*

Be it known that we, JESSE MARKEE and WILLIAM E. SPICER, of Aledo, in the county of Mercer and in the State of Illinois, have invented certain new and useful Improvements in Cultivators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a cultivator, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of our improved cultivator, and Fig. 2 is an enlarged longitudinal section through the front part of one of the plow-beams.

A A represent the two plow-beams, each provided with a handle, B, and two plow-standards, C C, with plows or shovels D D, said parts being all constructed in any of the known and usual ways. The front end of each plow-beam A is pivoted between a top plate or casting, E, and a bottom plate or casting, E', by means of a bolt, *a*. The upper and lower surfaces of the plow-beam, where they come in contact with the castings E E', are lined with metal plates *b b*, and in the beam is inserted a metal pipe or tube, *d*, through which the bolt *a* passes. This tube will prevent wear of the plow-beam at the pivot, which would cause rocking of the beam. The front end of the bottom casting E' is enlarged and slotted longitudinally, forming prongs or arms *e e'*, while the front end of the top casting E is bent downward till it reaches the casting E', when it extends forward on top thereof, it being also enlarged and slotted to form corresponding prongs or arms *e e*, and the two slotted parts of the plates united together by bolts or other suitable means. In

the prongs or arms *e e'* are formed bearings for the spindles *f* on the ends of the arched axle G, and upon the outer end of each spindle is pivoted a draft-hook, *h*, the rear end of which is forked and straddles the end of the spindle. To each spindle *f* is fastened a curved arm, I, by means of a bolt, *i*, as shown in Fig. 2. This arm is placed between the prongs of the castings E E' and curved over the spindle, its rear end extending backward under the casting E', and in the front end of the arm is swiveled a curved runner, H. The runners H prevent all up-and-down motion of the points of the beams when in use, and preventing the plow from falling down in front when the plow is at rest.

By the construction of the clevis the plows may be moved freely both in a horizontal and perpendicular direction, causing the points of the shovels to move as soon as the handles are moved, and avoiding all oscillating motion.

On each side of each plow-beam A is hinged a rod, *m*, to the outer end of which is attached a socket, J. This socket is to be placed on the point of the shovel D, to form a slide when moving the plow from place to place.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the plow-beams A A, of the forked castings E E' E', arched axle G, with spindles *f f*, curved arms I, bolts *i*, swiveled runners H, and draft-hooks *h*, all substantially as set forth.

2. In a cultivator, the metallic socket J, connected to the rod *m*, having a hook at its end, which clutches into a staple in the plow-beam, as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 10th day of August, 1874.

JESSE MARKEE.  
WILLIAM E. SPICER.

Witnesses:

JACOB COOL,  
M. L. MARSH.