(No Model.)

J. BLAKELEY.

CULTIVATOR.

No. 427,543. Patented May 13, 1890.

Fig. 1.

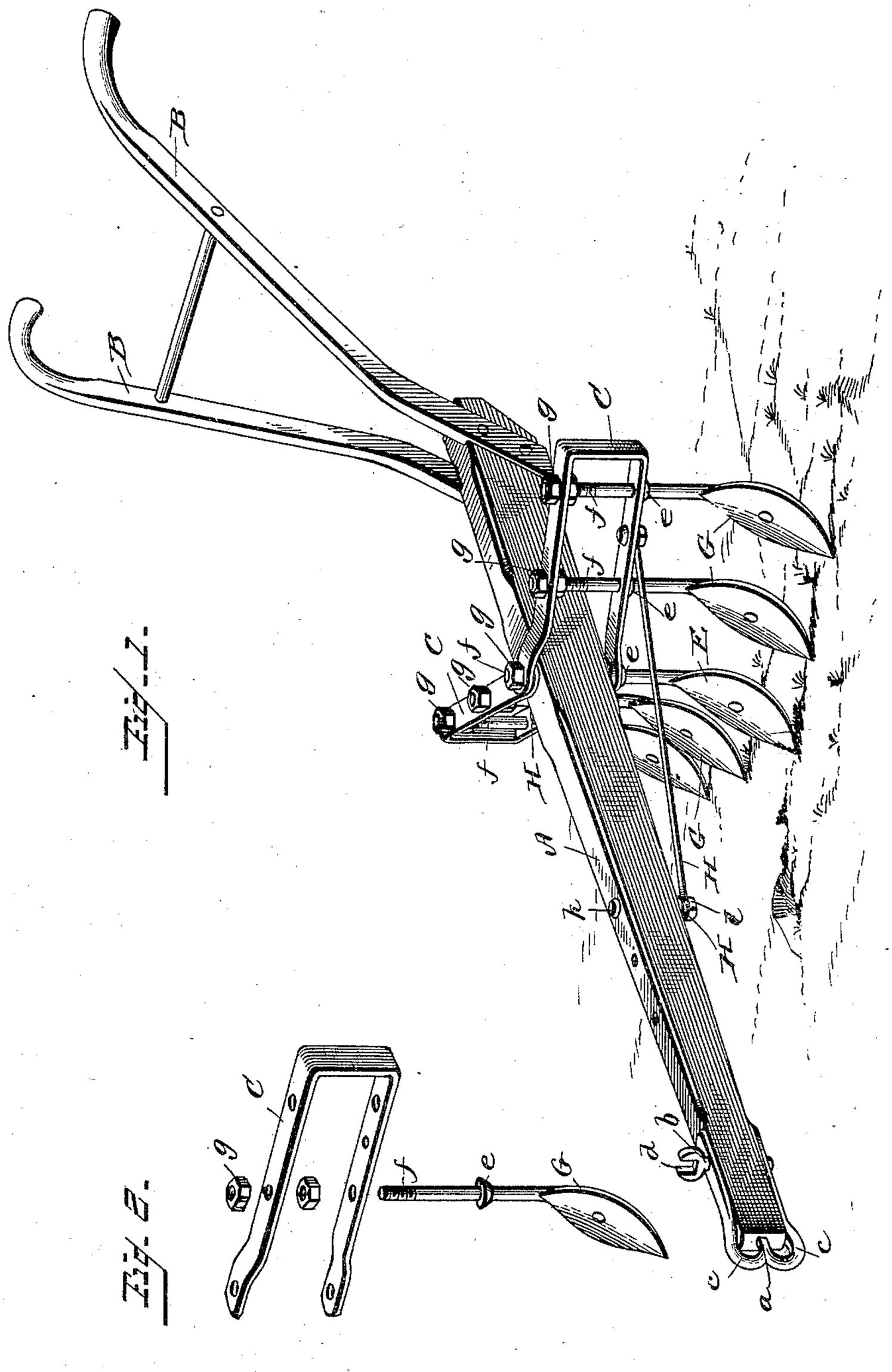

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN BLAKELEY, OF NEWTON, MISSISSIPPI, ASSIGNOR OF ONE-HALF TO THOMAS J. BOUNDS, OF SAME PLACE.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 427,543, dated May 13, 1890.

Application filed February 5, 1890. Serial No. 339,262. (No model.)

To all whom it may concern:

Be it known that I, JOHN BLAKELEY, a citizen of the United States, residing at Newton, in the county of Newton and State of Mississippi, have invented certain new and useful Improvements in Cultivators; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in cultivators; and it has for its object, among others, to provide an improved device of this character wherein the one implement may be used for different purposes. It may be used for plowing both sides of the row at one furrow; for plowing middle of the row by simply changing the position of the cross-beams and using all the plows. By removing all the plows except the center one and each end plow and removing the diamond-shaped plows and substituting sweeps the implement may be used for sweeping the middle of the row. With other adjustments and substitution of sweeps for plows it may be used for a variety of purposes.

Other objects and advantages of the invention will hereinafter be made apparent, and the novel features thereof will be specified in the claims.

The novelty resides in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of my improved cultivator. Fig. 2 is a like view of one of the portions of the cross-beam and its parts removed and separated, but shown in their relative positions.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the plow-beam, which may be of any of the ordinary or well-known constructions and provided with the handles B, which are attached thereto in any suitable manner. These handles may in practice be either of wood or metal, although wood is preferred.

At the forward end of the plow-beam is provided a clevis or other suitable means for the attachment of the draft. In the present instance I have shown the clevis as composed of one piece of metal bent at or near its center to form the point or projection *a*, which enters the end of the plow-beam and serves to prevent displacement of the clevis, the ends of the piece of metal of which it is formed being extended upon the upper and lower side of the end of the plow-beam, as shown, and there secured by means of the vertical pin or bolt *b*, which passes through the said ends, and at its lower end is preferably screw-threaded and engages the screw-thread of the lower portion of the clevis. The bending of the metal thus forms two loops or eyes *c*, permitting of different vertical adjustments of the draft attachment. The upper end of the bolt or screw *b* is bifurcated, as shown at *d*.

C are the plow or cross beams. There are two, each being alike. I will therefore describe in detail only one. It consists of a suitable kind of metal bar bent upon itself to form two parallel portions, which extend horizontally, and a vertical portion connecting the same. These are arranged with their vertical portions outward, the unconnected ends being arranged adjacent to each other and overlapped upon the upper and under sides of the plow-beam, where they are held by the shank of the central plow E, which is provided with a collar or shoulder *e* upon the under side of the plow-beam, which rests against the under side of the lowermost portion of the overlapped ends of the cross-beams, the upper portion of this shank being screw-threaded, as shown at *f*, and after passing through the overlapped ends of the cross-beams upon the top of the plow-beam receives a nut *g*, which may be tightened to prevent turning of the shank of the plow and of the

cross-beams, or it may be left sufficiently loose to allow the same to be turned in any direction desired.

Each of the cross-beams carries two (or it may be more) plows G, the standard or shank of each of which is similar to that of the central one, having a shoulder at the under side and a screw-threaded upper end which receives a nut to hold it in place. The plows, except the central one, however, have their standards or shanks provided with a nut both above and below the cross-beam, as shown, to allow of different vertical adjustments and prevent turning of the shank. By removing the nuts the shanks may be withdrawn downward when desired.

H are diagonal brace-rods extending from the cross-beams from substantially their centers to the plow-beam, where they are formed with eyes through which passes a vertical bolt *k*, provided with a nut *l*. The shanks carry diamond-shaped plows or sweeps of any well-known form, which are designed to be interchangeable when desired. They are held to the shanks by any suitable means which will permit of their ready removal.

In practice when it is desired to plow upon both sides of the row the front or center plow is removed. When it is desired to plow the middle of the row, all the plows are used and the cross-beams are thrown forward. By leaving the cross-beams in the same position and removing all except the center and end plows and removing the diamond-shaped plows and substituting sweeps I am enabled to sweep the middle of the row.

By using the diamond-shaped plows, using them as a cultivator, and throwing one end of the cross-beam at an angle, the device can be used either right or left handed.

By removing one half of the cross-beam and leaving the other half attached to the plow-beam and using the three plows, moving the cross-beam back at a proper angle, I can use the device as a side cultivator or with plows.

With both parts of the cross-beam on and each end turned at the proper angles backward, the device can be used as a shovel-tooth harrow for pulverizing or leveling land. It can also be used for the same purpose by adjusting the cross-beams square across the plow-beam.

It will thus be seen that I have devised a cultivator that with very little trouble may be made to serve a variety of purposes.

The parts are simple, easily assembled, and readily removed for interchanging with other parts.

What I claim as new is—

1. The combination, with the plow-beam and the cross-beam in two parts, each formed of a substantially V-shaped piece of metal arranged with the parallel portions in the same vertical plane, the adjacent ends of the two parts being overlapped, of the shank passed through the overlapped ends of the two parts and provided with a nut for holding the same in place, substantially as shown and described.

2. The combination, with the plow-beam and the cross-beam formed of two like parts overlapped at their adjacent ends, of the plow-standards carried by the said two parts and provided with removable plow-points, the central plow, the shank of which serves to connect the two parts of the cross-beam, the adjusting-nut on the end of the central shank, and the angular braces connecting the said two parts of the cross-beam with the plow-beam, substantially as shown and described.

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

JOHN BLAKELEY.

Witnesses:
J. M. WILLIAMS,
J. E. HARRIS.