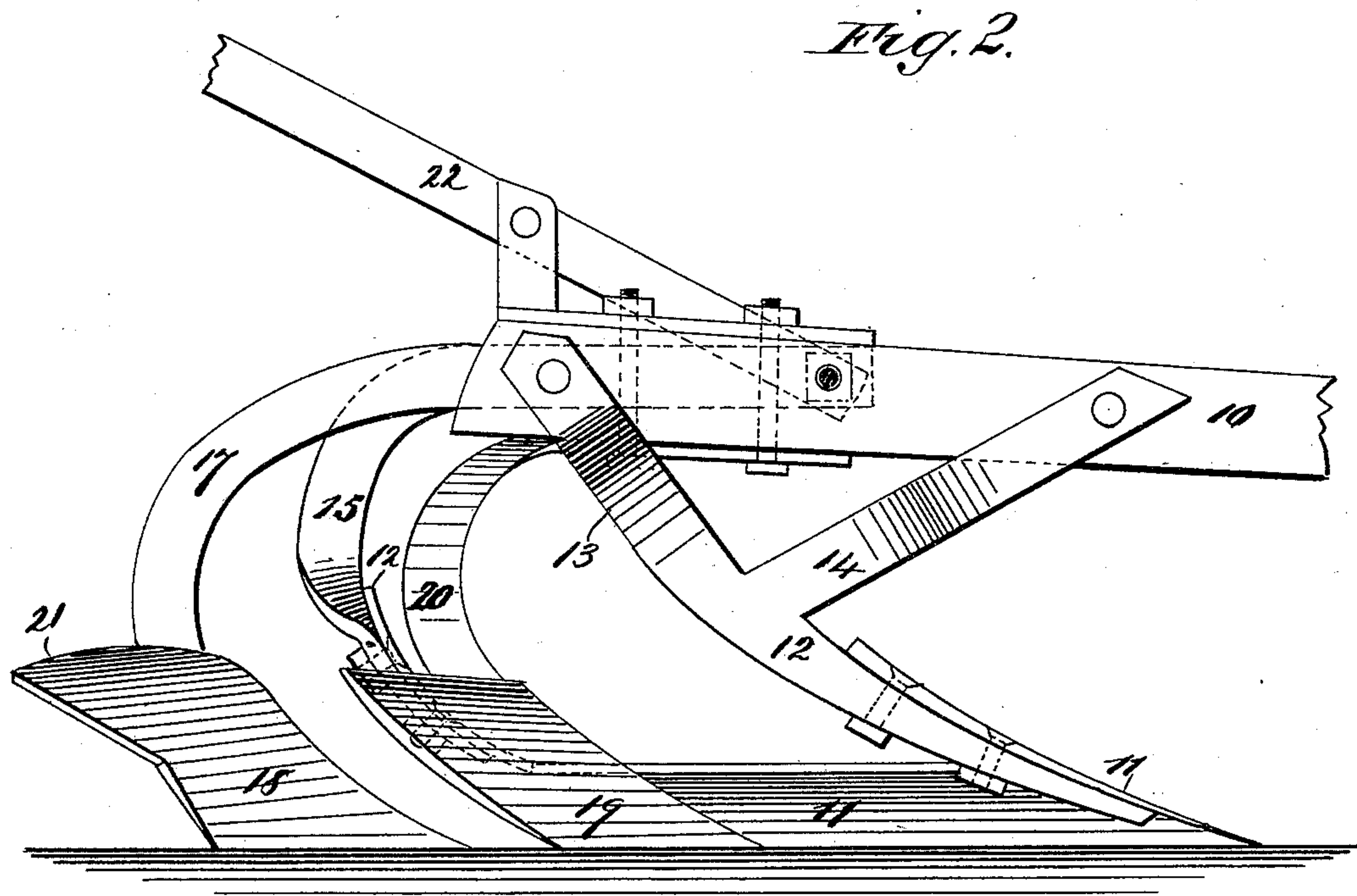
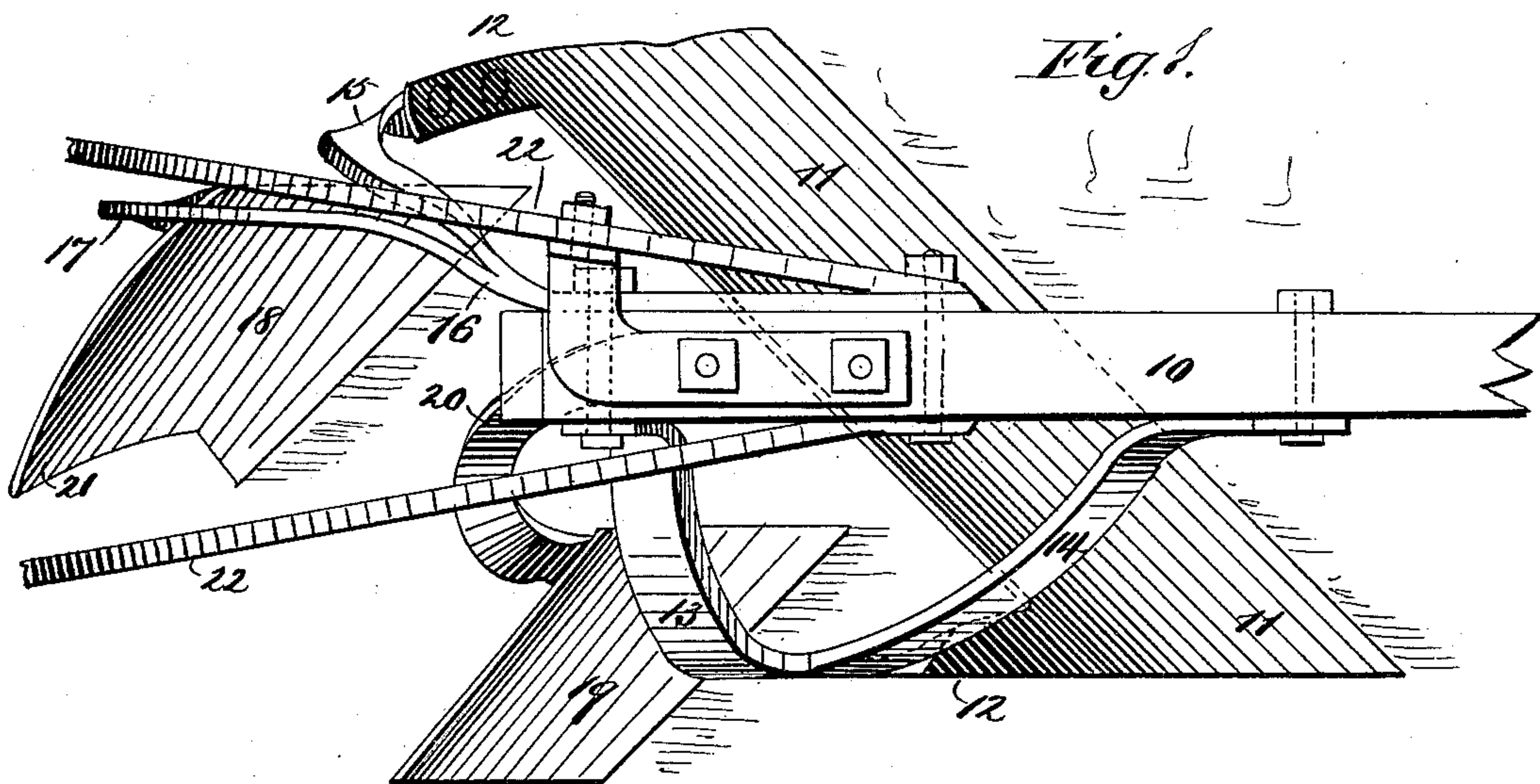


(No Model.)

R. CRACRAFT.
CULTIVATOR.

No. 429,888.

Patented June 10, 1890.



WITNESSES:

F. Mc Ardle,
G. Sedgwick

INVENTOR:

R. Cracraft
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BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

RICHARD CRACRAFT, OF ABINGDON, ILLINOIS, ASSIGNOR OF ONE-HALF TO
EDGAR R. HARDY, OF SAME PLACE.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 429,888, dated June 10, 1890.

Application filed September 2, 1889. Serial No. 322,663. (No model.)

To all whom it may concern:

Be it known that I, RICHARD CRACRAFT, of Abingdon, in the county of Knox and State of Illinois, have invented a new and useful Improvement in Cultivators, of which the following is a full, clear, and exact description.

My invention relates to an improvement in cultivators especially adapted for use wherever shallow culture is desired, as in the cultivation of cotton, corn, &c.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in both the views.

Figure 1 is a plan view of the cultivator, and Fig. 2 is a side elevation of the same.

The beam 10 may be constructed of wood or of metal, and diagonally beneath the beam a horizontal blade 11 is located extending beyond each side of the beam and so placed that the earth will be thrown to the left. The angle of inclination of the blade is such that the earth turned up thereby will pass over the rear of the blade. From each upper end of the blade a tongue 12 is projected having a slight upper rearward curve, the right-hand tongue being rigidly attached to the lower end of an arm 13, which arm is carried rearward and inward to a firm contact with the right-hand side of the beam at its heel or rear end, as illustrated. A branch arm 14 is preferably projected from the main arm 13 near its lower end, which branch arm is forwardly and inwardly curved, as best shown in Fig. 1, to a rigid connection with the beam.

To the left-hand tongue 12 of the front diagonal blade 11 one member 15 of an arm 16 is secured, the body of the arm being firmly secured to the left-hand side of the beam 10. The member 15 is curved downwardly and outwardly therefrom, and the other member 17 of the arm is curved downwardly and rearwardly more to the right, and to the lower end of this member 17 a cultivator-blade 18 is secured, facing toward the right and following immediately behind the left-hand end of the front diagonal blade. This cultivator-

blade 18 partakes of the form of a plowshare minus the bar or landside.

To the right of the cultivator-blade 18, at a slight distance therefrom, a second cultivator-blade 19 is rigidly secured to the lower end of an arm 20, which arm is curved upward and fastened at its forward end to the under side of the beam 10. The cultivator-blade 19 is shorter than the blade 18, and is constructed with straight parallel top and bottom edges and parallel inclined ends, as illustrated in Fig. 1, the blade 18 being constructed with a rear mold-board extension 21 at the upper end. The two blades 18 and 19 throw the earth to the right.

In operation, as the implement is drawn forward the diagonal blade loosens the earth, which, as the blade advances, passes over to the rear thereof and is thrown to the right by the blades 18 and 19, which follow directly behind the diagonal blade. The plow-beam is provided at the rear with the usual handles 22. As the bars or landsides are omitted from the plow-like blades 18 and 19, and as the blades are set to work in opposite directions, the great difficulty of side draft is completely overcome. It is apparent that the beam may be readily secured to any carriage capable of drawing a cultivator or plow.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a cultivator, the combination, with a beam, a blade arranged diagonally beneath the beam extending beyond the sides thereof, an arm having a bifurcated rear end secured to one side of the beam, the outer member whereof is curved downward to an attachment with one end of the diagonal blade, the other member being curved downward and further rearward and inward, and a second arm attached to the opposite side of the beam at the rear and connected with the other end of the diagonal blade, of a share-like cultivator-blade attached to the inner member of the bifurcated arm, facing in an opposite direction to the diagonal blade, an arm attached to the under side of the beam at the rear curved downwardly, and a cultivator-blade attached to the said arm parallel with the share-like blade, both of the cultivator-blades

following behind the diagonal blade, substantially as shown and described.

2. The combination, with the cultivator-beam, a blade 11, arranged diagonally beneath
5 the beam and extending beyond its sides, an arm 13, attached to the beam and one end of the diagonal blade, which arm is provided with a branch arm 14, and a second arm 16,
10 provided with downwardly-curved bifurcated members 15 and 17, the member 15 being attached to one end of the diagonal blade, of a share-like cultivator-blade 18, provided with a mold-board extension 21, secured to the

member 17 of the arm 16, an arm 20, attached 15 beneath the beam at the rear and downwardly curved, and a second cultivator-blade having straight parallel upper and lower edges and parallel inclined ends secured to the said arm 15, the cultivator-blades 18 and 19 facing in 20 a direction opposite to the forward face of the diagonal blade, substantially as shown and described.

RICHARD CRACRAFT.

Witnesses:

STEPHEN D. BRINGTON,
WALTER H. CLARK.