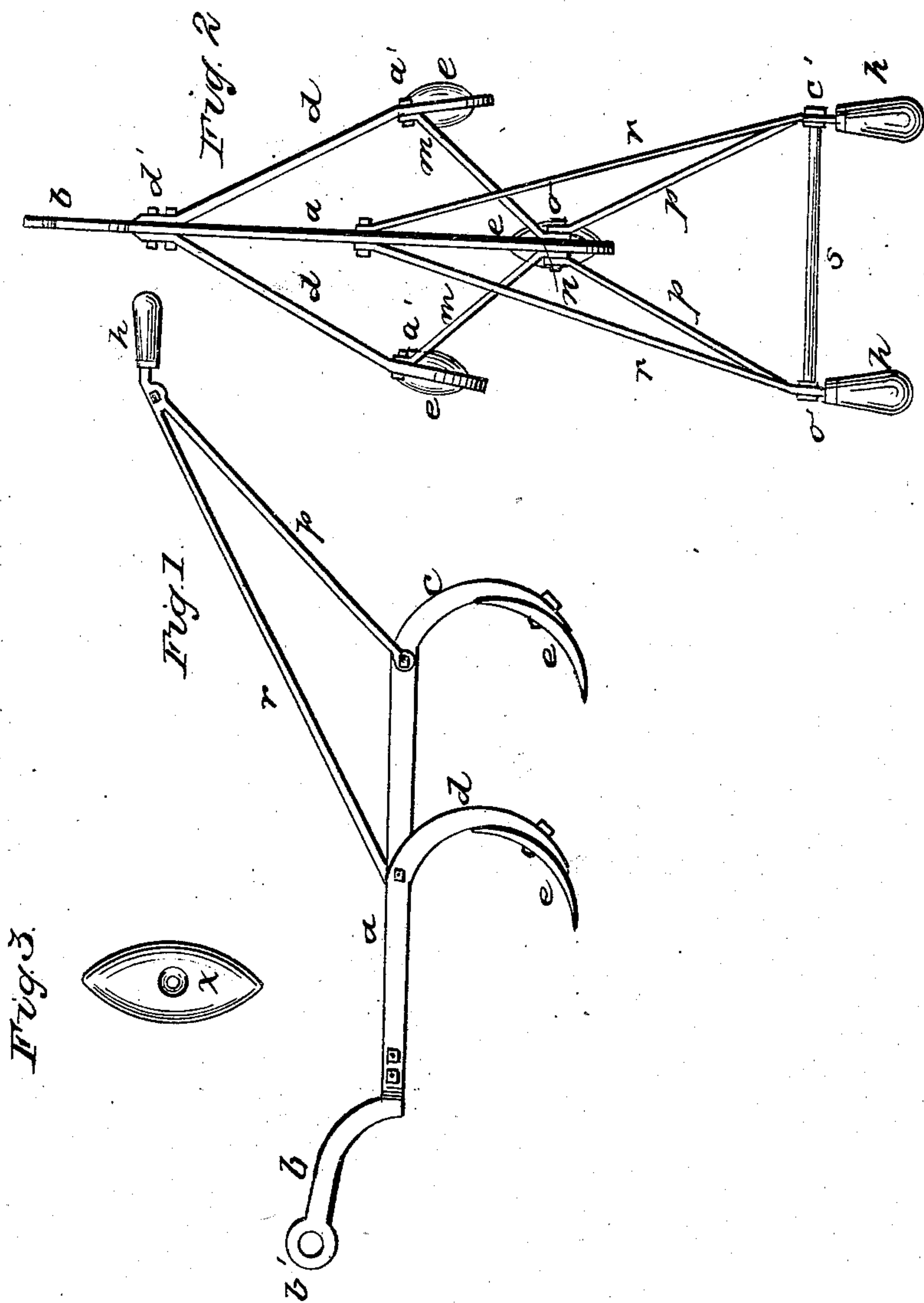


D. G. BENNER.

Cultivator.

No. 99,625.

Patented Feb. 8, 1870.



witnesses
S. J. Lucker
W. H. Hinkel

Inventor
D. G. Benner
by John A. Bradstreet
att'y.

UNITED STATES PATENT OFFICE.

D. G. BENNER, OF HOLMESVILLE, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 99,625, dated February 8, 1870.

To all whom it may concern:

Be it known that I, DANIEL G. BENNER, of Holmesville, in the county of Holmes and State of Ohio, have invented a new and useful Improved Cultivator; and I do hereby declare the following to be a clear and exact description of thereof, sufficient to enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view of my improved cultivator, and Fig. 3 is a top view of the same. Fig. 3 is a detached view of one of the cultivator-teeth.

Similar letters indicate like parts in all the figures.

My invention consists in so arranging the beams of the several cultivator-teeth, in connection with braces attached thereto, that greater strength with the same amount of material is attained, as compared with the ordinary cultivator, while the draft is less, as hereinafter more fully set forth.

In the accompanying drawings, *a* is the main beam of the cultivator, turned up in front, as seen at *b*, Fig. 1, and terminated in a ring, *b'*, where the power to operate the cultivator is applied. The rear end of the main beam *b* is curved at *c*, as seen in Fig. 1, and to the lower portion of the curved beam *c* a tooth, *e*, is securely bolted or otherwise fastened.

d d are two beams attached to the main beam *a* at *d'*. These beams *d d* lie at equal distances from the main beam *a*, or are symmetrically situated with regard to said beam, as plainly shown in Fig. 2. These side beams, *d d*, are curved at their lower ends, and have teeth *e e* bolted or otherwise attached thereto.

m m are braces bolted or otherwise securely fastened to the main beam at *n*, and to the side beams, *d d*, at *a' a'*. A quadrilateral figure, *m m d d*, is thus formed, having the main or center beam, *a*, for its diagonal, the several parts of which are so constructed and arranged as to strengthen each other and resist any strain thrown upon them, while the draft is facilitated by the arrangement and construction being such as to allow the parts to be made of less cumbrous material than is ordinarily employed.

r r p p are braces bolted or otherwise securely fastened to the main beam, and diverging therefrom at the points *z* and *n*. (See Fig. 2.) These braces *r r p p* unite at the points *c' c'*, and are connected together at their ends by the rods or braces *s*.

h h are the handles of the cultivator.

It is obvious by this arrangement and construction of the parts I am enabled to make a cultivator of easy draft, while it is also capable of resisting any strain.

I am aware that the various parts of my device separately are not new, and I therefore disclaim them; but

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

The combination and arrangement of the main center beam, *a*, side beams, *d*, braces *m m*, and handles *r r p p s h*, the parts being constructed and operated substantially as set forth.

The above signed by me this 22d day of January, 1870.

D. G. BENNER.

Witnesses:

JOHN A. WIEDERSHEIM,
W. H. FINCKEL.