N. T. BREWSTER & A. D. NEHER.

CULTIVATOR.

No. 191,101. Patented May 22, 1877.

Fig. 1.

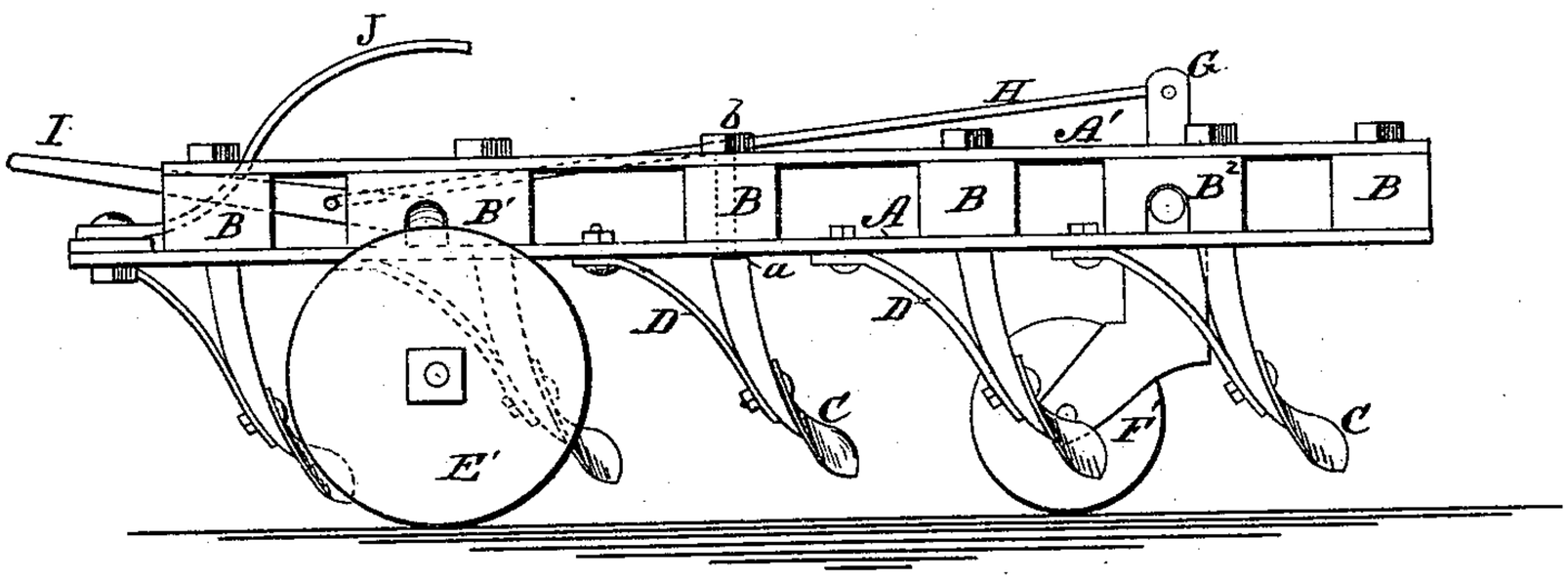
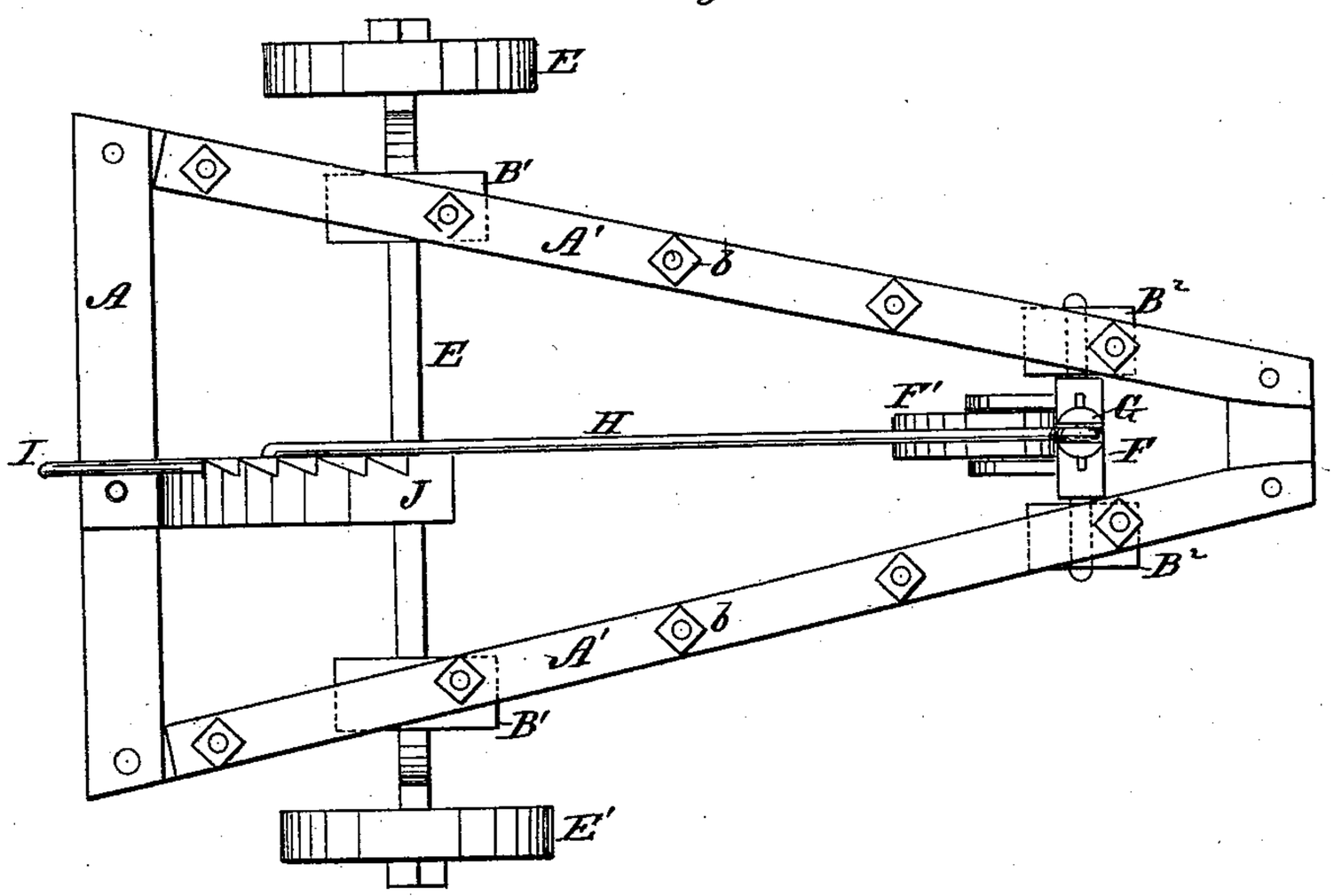


Fig. 2.



WITNESSES:

W. W. Hollingsworth

Edw. W. Byrn

INVENTOR:

N. T. Brewster

A. D. Neher

BY

Munn & Co

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE

NATHAN T. BREWSTER AND ABRAHAM D. NEHER, OF ROSEVILLE, CAL.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **191,101,** dated May 22, 1877; application filed April 11, 1877.

To all whom it may concern:

Be it known that we, NATHAN T. BREWSTER and ABRAHAM D. NEHER, of Roseville, in the county of Placer and State of California, have invented a new and Improved Cultivator; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side view with the cultivator teeth and frame raised. Fig. 2 is a top view.

Our invention relates to certain improvements in cultivators; and it consists in the particular arrangement of a double wrought-iron frame, combined with cultivator-teeth and separating-blocks located between the parts of the frame, one set of which blocks, in the front and also in the rear of the cultivator, form bearings for wheeled axles, through which the cultivator is raised for transportation or lowered for use, the particular arrangement of the cultivator being such as to impart to the same great strength and durability, and to permit the same to be readily taken to pieces and used independently of its wheels, if desired.

In the drawing, A represents the main frame, made in triangular shape, of bars of wrought-iron, while A′ A′ are a second set of similar bars, located above the side bars of the main frame, and separated from them by means of blocks B, so as to form with said main frame a double frame for the cultivator-teeth C.

The upper portions of the shanks of the cultivator-teeth are reduced in size, so as to leave shoulders *a*, which abut against the lower side of the main frame-bars A, to prevent them from slipping up through the same, while the said smaller upper ends pass through the main frame, the blocks B, and the upper bars A′, and are securely held in position by means of nuts *b* upon their screw-threaded ends above the said upper bars. The blocks B serve, in this connection, not only to make a firm connection and long bearing for the upper end of the cultivator-teeth, but, by having them made of cast-iron and of different sizes, they may be employed to increase or diminish the weight of the cultivator. The cultivator-teeth are provided, further, with braces D, which are bolted to said teeth at one end, and to the lower side of the bars of the main frame at the other, which braces serve to give additional strength to the teeth.

In arranging the cultivator to be transported upon wheels, we lengthen one set of the rear blocks B^1 B^1, and also one set of the forward blocks B^2 B^2, and in the bottom portion of said blocks we form journal-bearings, in which are located the axles E and F, that support the cultivator, and are themselves supported upon wheels E′ and F′. The axle E of the rear wheels is a double-crank axle, while F is a plain axle supported by a single wheel, and provided with an upwardly-extended arm, G, which is connected through a rod, H, with a lever, I, firmly fixed upon the crank-axle. Now, by moving the lever I the crank-axle is turned, and the rear portion of the cultivator raised or lowered, while, at the same time, the front portion is also raised or lowered, through rod H and arm G, by the throwing of the front wheel to the front or rear upon its axle as a pivot, the cultivator being fixed and held in its raised position by means of a notched bar, J, with which the lever I is made to engage.

With respect to the advantages of our invention, it will be seen that the blocks B, by their detachable character, permit the cultivator to be taken to pieces and packed up within a small space, while the firm and durable connection which they afford, together with the regulation of the weight of the cultivator, renders the implement especially adapted to use upon the Western lands.

By locating the axles of the wheels, also, in bearings in the detachable blocks, the wheels and their axles may be readily removed from the cultivator without further alteration or injury, and the cultivator used with or without wheels, as may be desired.

In defining more clearly the scope of our invention, we would state that we do not claim, broadly, the double frame, nor the reduced shanks of the teeth; neither do we claim the means for raising and lowering the cultivator, nor the general application of blocks to separate the parts of a frame; but when the blocks are perforated, and arranged as shown with respect to the shanks of the teeth, which pass through said perforations and the double

frame, which incloses said blocks, the blocks co-operate with the teeth to afford a long bearing and a rigid and secure connection for their shanks, while said shanks co-operate with the blocks by fixing and determining their position. We, therefore, claim only the particular construction and arrangement of such parts as shown and described.

Having thus described our invention, what we claim as new is—

1. The double separable frame A A′, combined with the detachable blocks B and the cultivator-teeth C, having reduced shanks passing through the said blocks and bars, to be secured above the same, and provided with braces D, substantially as and for the purpose set forth.

2. The combination, with the double frame A A′, of the detachable blocks B¹, held by the shank of the cultivator-tooth, and the axle of the transporting-wheel, arranged in bearings in said blocks, as and for the purpose described.

NATHAN T. BREWSTER.
ABRAHAM D. NEHER.

Witnesses to the signature of Neher:
EDW. W. BYRN,
AMOS W. HART.

Witnesses to the signature of Brewster:
SAM. J. PULLEN,
JNO. L. BERRY.