N. M. HULBERT & T. F. ELLIOTT.

Grain-Cradle.

No. 214,916. Patented April 29, 1879.

Fig. 1.

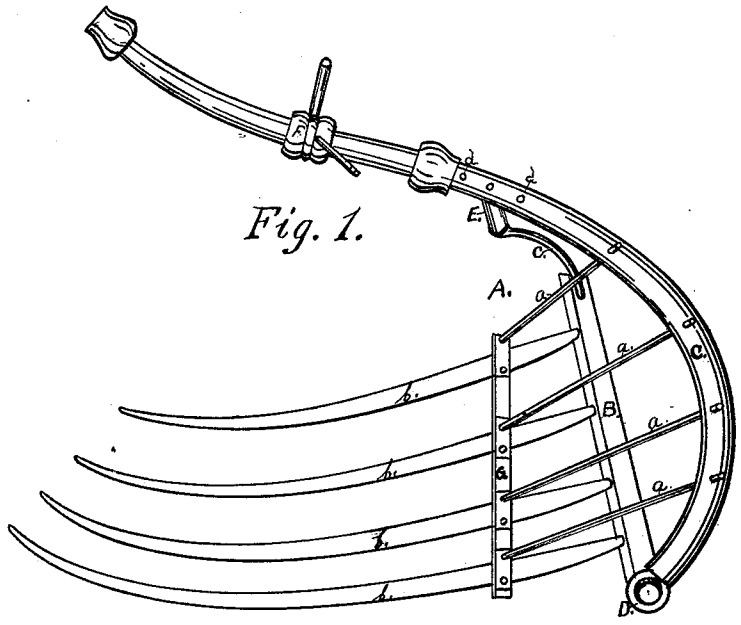


Fig. 2.

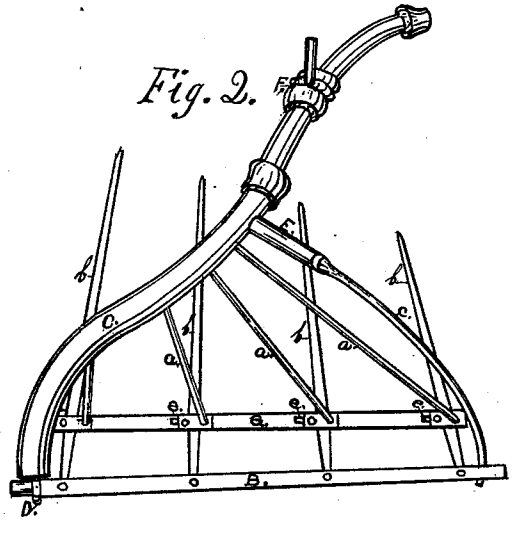
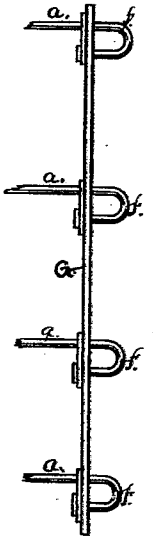


Fig. 3.



Witnesses;

T. J. Lacey.

A. E. McIntyre.

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UNITED STATES PATENT OFFICE

NEWTON M. HULBERT AND THEODORE F. ELLIOTT, OF BINGHAMTON, N. Y.

IMPROVEMENT IN GRAIN-CRADLES.

Specification forming part of Letters Patent No. **214,916**, dated April 29, 1879; application filed March 25, 1879.

To all whom it may concern:

Be it known that we, NEWTON M. HULBERT and THEODORE F. ELLIOTT, of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Grain-Cradles, of which the following is a specification, reference being had to the accompanying drawings.

Our invention consists in the peculiar construction and combination of the snath and its connections with the head and stay-braces of the fingers and adjustable nibs, all of which are so constructed and arranged as to increase the efficiency of the cradle, allow of a more natural and easy position for the operator, obviate the liability of derangement of parts, and facilitate the work for which the cradle was designed.

Figure 1 in the accompanying drawings is a side view of a cradle embodying our invention. Fig. 2 is an end view of the same. Fig. 3 is a view of the finger-brace cross-bar detached.

A is the cradle, the head or finger-bar B of which is connected with the snath C by a metallic ring or socket, D, screwed into the end of the snath. This obviates the usual extension from the joint, and makes said socket-connection a self-adjusting joint, obviating the liability of undue strain of the parts while adjusting the fingers *b*, particularly when the connections have been moistened.

The snath C is bent to incline forward and upward on a line with the finger-bar B to the first finger-brace *a*, when it inclines toward the center of the plane of the fingers *b*, extending to the nib E, which has an extension, *c*, connecting with and forming a brace for the finger-bar B. This, in connection with the peculiar bend of the snath, brings the nib E nearly over the center of the plane of the fingers *b*, thereby balancing the cradle, and allowing of a more convenient and easy cut of the swath.

The nib E is made adjustable to one or more positions on the snath, and is secured in place by a screw passing through holes *d d*.

Instead of making it necessary to clasp the snath in the usual manner with the left hand, with the thumb pointing upward, causing the arm to remain under constraint in contact with the side, we attach a self-adjusting supplementary nib or handle, F, for the left hand, fitted loosely on the snath, and thus allowing of a longitudinal and rotatory movement and a free use of the arm, greatly contributing to the ease and convenience of the operation, and facilitating the work.

G is the finger-brace cross-bar, having slots *e e* over each finger for the reception of loop-extensions *f f* on the end of the finger-braces *a a*. These loops pass around the fingers, the screw-threaded ends extending above the slot *e* for the reception of screw-nuts, which bear on metallic washers or plates, and securely hold the fingers in position, as shown in the drawings. The other end of the brace is secured to the snath and adjusted by set-screws.

By the peculiar bend of the snath these finger-braces are made shorter, allowing of more compactness of parts and less weight and more strength to the cradle.

The fingers *b* diminish in length from the scythe, for the purpose of securing the entire cut of the swath, and to prevent the shelling of the grain when it is interlocked with straws or stalks.

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

In combination with the cradle A, the snath C, bending directly forward on a line with the finger-bar B to the brace *a*, then inclining toward the center of the plane of fingers *b*, the ring or socket-joint D, the nib E, and extension-brace *c* in one piece, the supplementary nib F, these finger-braces having extension-loops secured around the finger by screw-nuts and metallic plates or washers, and the finger-brace cross-bar G, having slots *e* for reception of loops *f*, all constructed substantially as shown and described, for the purpose set forth.

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Witnesses:
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