

(No Model.)

2 Sheets—Sheet 1.

P. B. NALLEY.
GRAIN CRADLE.

No. 358,783.

Patented Mar. 1, 1887.

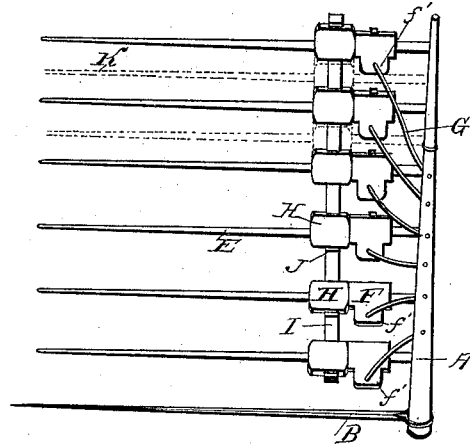
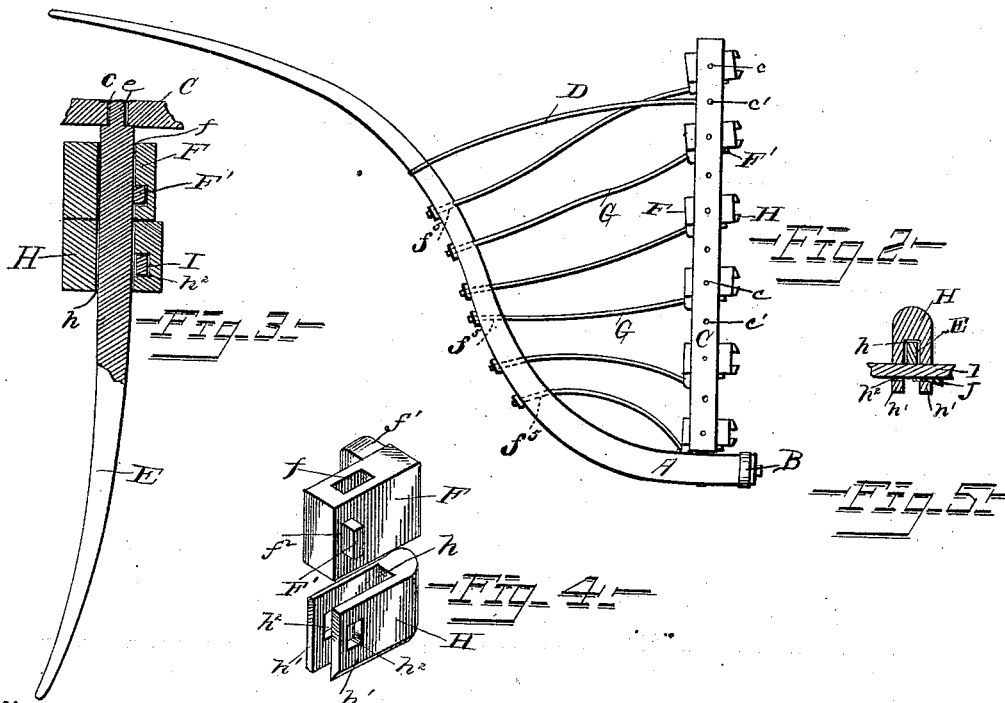


Fig. 1.



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By his Attorney,
C. A. Howden

(No Model.)

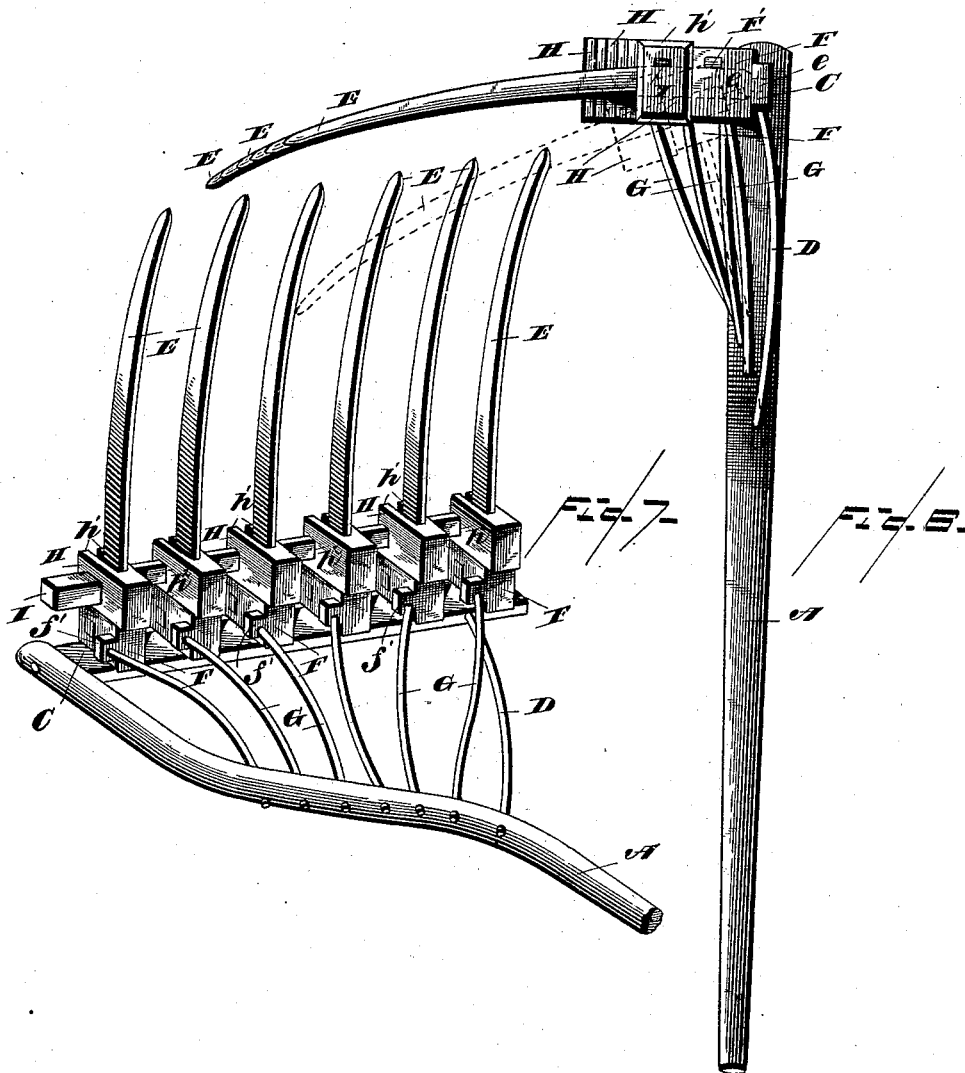
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

PETER BAXTER NALLEY, OF MAJORS, SOUTH CAROLINA, ASSIGNOR OF
ONE-HALF TO M. R. REAMES, OF SAME PLACE.

GRAIN-CRADLE.

SPECIFICATION forming part of Letters Patent No. 358,783, dated March 1, 1887.

Application filed March 17, 1886. Serial No. 195,564. (No model.)

To all whom it may concern:

Be it known that I, PETER BAXTER NALLEY, a citizen of the United States, residing at Majors, in the county of Anderson and State of South Carolina, have invented new and useful Improvements in Grain-Cradles, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in grain-cradles; and it consists of the peculiar and novel construction and combination of parts, substantially as hereinafter fully set forth, and specifically pointed out in the claims.

The object of my invention is to provide an improved cradle which shall be very simple, light, and strong in its construction, and cheap and inexpensive of manufacture.

A further object of my invention is to provide an improved cradle in which either one or more of the series of fingers can be easily and readily displaced or removed when broken or otherwise damaged so as to be unfit for use, and replaced at a trifling expense, without disturbing the other parts of the cradle; to provide improved means for varying the angle that the fingers lie to the cross-bar, and to provide means whereby the spaces between the fingers can be varied, so as to adapt the cradles to different kinds of grain.

In the accompanying drawings, Figure 1 is an elevation of my improved grain-cradle. Fig. 2 is a rear view thereof. Fig. 3 is a horizontal sectional view through one of the fingers and the supporting and bracing means therefor. Fig. 4 is a detail perspective view of the adjusting and supporting sleeves. Fig. 5 is a detail sectional view through one of the retaining-sleeves. Fig. 6 is a top view of my improved cradle, showing one finger inclined forward of the rest in dotted lines. Fig. 7 is a perspective view of the grain-cradle.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the snath or handle of an ordinary grain-scythe, and B the cutter-blade thereof, that is suitably secured to the handle by any preferred means.

C designates a vertical bar that is rigidly se-

cured at one end to the snath A and braced at its other end by a rod, D, that is rigidly secured at its ends in the snath and the bar, as will be readily seen. This vertical bar is provided with a series of openings or apertures, *c c'*, which are equidistant, and in these apertures are fitted the reduced ends or tenons *e* of the cradle-fingers E, which are curved and tapered longitudinally, as is usual, and made of wood for lightness. The rear ends of the fingers are fitted in an opening or socket, *f*, of a retaining-sleeve, F, the socket being a little larger in shape and size than the dimensions in cross-section and form of the fingers. These retaining-sleeves are held rigidly in place by means of brace-rods G, which are secured in the snath or handle A and in a lateral lug, *f'*, of the sleeves, and the sleeves are rigidly held on the fingers by means of wedge-shaped keys F', that are inserted through a transverse opening, *f''*, that opens into the socket *f*, and the keys are firmly driven in place. The fingers, retaining-sleeves F, and brace-rods G correspond in number, and they are very rigidly and firmly held in place.

H designates the adjusting-sleeves, which are fitted on the fingers E immediately in front of and out of contact with the retaining-sleeves, and the adjusting-sleeves are slotted, as at *h*, to provide two parallel arms or plates, *h'*, which in turn have transverse openings *h''*. The parallel arms embrace or fit on opposite sides of the fingers, and through the openings in said arms is passed a connecting or brace rod or bar, I, that extends through all of the plates of the sleeves, and is rigidly held in place, to strengthen and brace the fingers, by wedge-shaped keys J, that are inserted in the openings *h''* of the sleeves, above or below the connecting or brace bar, so as to bind the several parts very firmly and rigidly together.

Ordinarily the fingers E are fitted in every other or alternate aperture, *c*, of the vertical bar C; but when it is desired to decrease the size of the space or width between the fingers and adapt the cradle to different kinds of grain a finger, K, is inserted into the space between every two or adjacent fingers, and the tenon *e* thereof is inserted into the aperture *c'* corre-

sponding thereto, as shown in dotted lines in Fig. 1, the adjusting-sleeves H of the fingers so inserted being rigidly and securely connected to the brace-bar I by means of the keys J, that accompany the sleeves.

It will be readily seen that when one of the fingers has been broken or otherwise rendered unfit for use the keys of the adjusting and retaining sleeves can be easily and readily removed, so that the broken or injured finger or fingers can be detached and replaced by another finger at a trifling expense.

It is sometimes necessary or desirable in cutting different classes or grades of grain that the angle or inclination of the fingers E to the lower end of the handle shall be varied, so that the fingers may lie to the front or to the rear of a vertical line above the blade. In order to secure this adjustment of the fingers E of the cradle the tenons *e* thereof are loosely fitted in their sockets *c c'* in the vertical bar C, so that a limited amount of movement is permitted to them to adjust them to the desired position, after which they are rigidly held against movement by the sleeves F and brace-rods G, as presently described.

When it is desired to extend or project the free ends of the fingers forward of the vertical plane of the blade, the keys F' of the adjusting-sleeves are removed, and the said sleeves are forced toward the free ends of the fingers until the desired position of the same has been reached, and the keys are then reinserted to hold the sleeves against displacement on the fingers. These brace-rods are of such a length that the adjusting-sleeves can be adjusted to the desired point without withdrawing one end of the brace-rods from the snath, one end of the said rods being secured to the lug *f'* of the adjusting-sleeve, and the opposite end thereof passing through an opening, *f^s*, in the snath A.

It will thus be seen that the adjusting-sleeve can be moved toward the outer or inner end of the fingers to vary the position of the latter, and the said sleeves are rigidly connected to the fingers by the keys and held thereto by the brace-rods G. If the sleeves H and the cross-bar I prevent the forward or retrograde movement of the adjusting-sleeves, they can be detached and again connected to the fingers on the opposite sides of the adjusting-sleeves, and thereby permit the necessary movement of the latter sleeves.

My improved cradle is simple and inexpensive in construction, readily adjustable, and effective in operation.

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

1. The combination of a snath having a fixed vertical bar at one end, the fingers connected to the vertical bar at one end, the adjusting-sleeves fitted on the fingers independently of each other and adjustable longitudinally thereof, and provided with means for securely connecting them thereto at any point, the brace-rods intermediate of the said sleeves and the snath, the retaining-sleeves, also fitted and secured on the fingers, and the rigid cross-bar connecting the retaining-sleeves and movable therewith, substantially as described, for the purpose set forth.

2. The combination of a snath, the vertical fixed bar C thereon, having the apertures or sockets *c c'*, the fingers fitted at their inner ends in the openings or sockets, the adjusting-sleeves fitted on the fingers, and having the transverse openings *f²* and the fixed lugs *f'* on one side, the keys passing through the openings *f²* of the said sleeves for securing the same to the fingers, the brace-rods secured at one end to the lugs of the sleeves and at the opposite end to the snath, the retaining-sleeves, also fitted on the fingers, and a rigid transverse bar, I, connecting the retaining-sleeves, substantially as described.

3. The combination of a snath carrying a fixed vertical bar, C, at one end, the fingers connected to the bar, the adjusting-sleeves fitted on and keyed to the fingers, the brace-rods intermediate of the adjusting-sleeves and the snath, the retaining-sleeves, also fitted on the fingers and having the parallel arms provided with the transverse aligned slots *h²*, the rigid bar I, passing through the aligned slots of the retaining-sleeves, and the keys for connecting the fingers, the sleeves, and the bar detachably together, substantially as described, for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

PETER BAXTER NALLEY.

Witnesses:
W. N. RANKIN,
M. R. REAMES.