(No Model.)

3 Sheets—Sheet 1.

T. W. BEAL.

LAND MARKER.

No. 328,561. Patented Oct. 20, 1885.

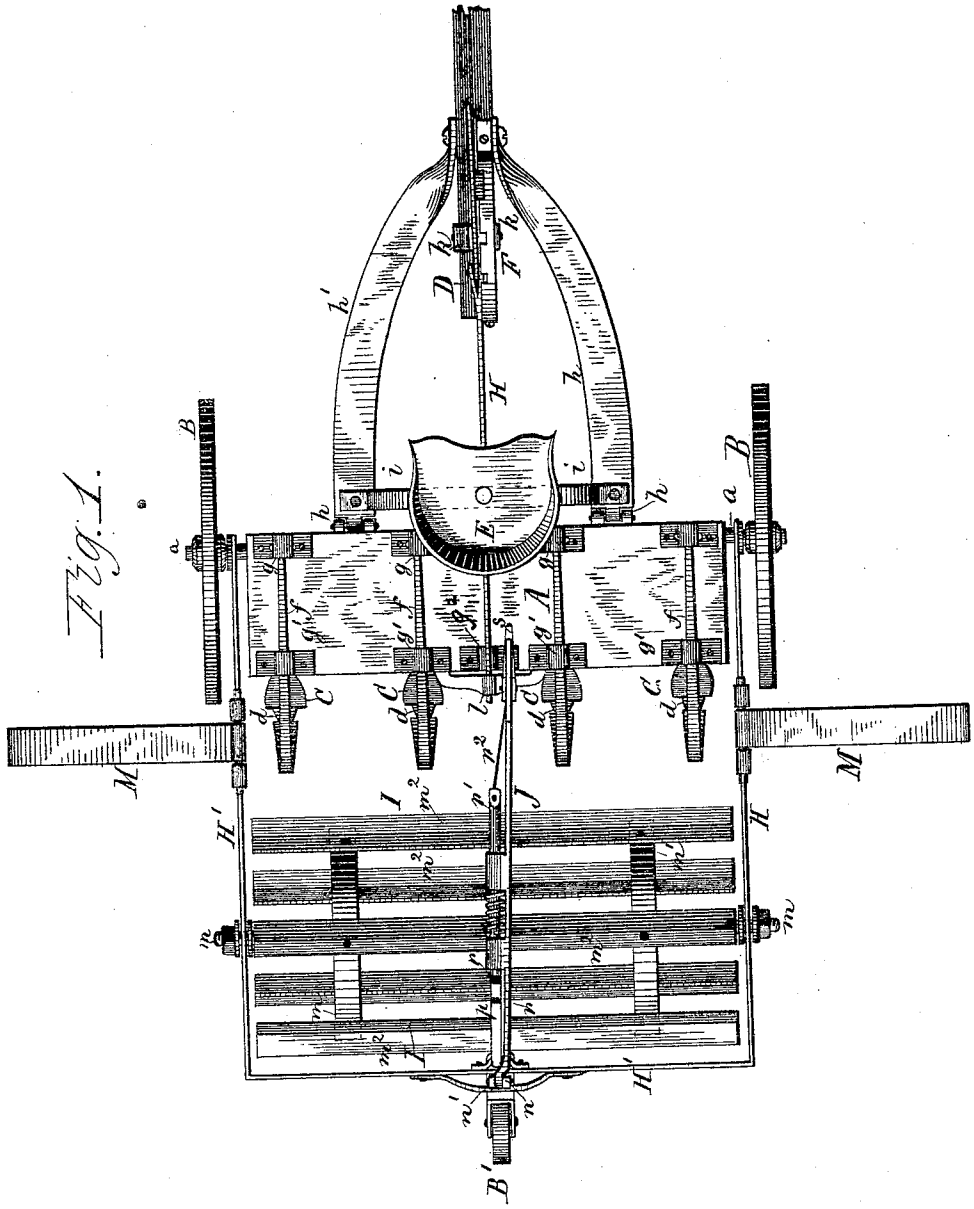


Fig. 1.

Witnesses:
B. C. Fennick.
R. Lincoln Fennick

Inventor:
Thomas W. Beal
by his Attys
Fennick & Fennick
Successors to
Marion Fennick & Fennick

N. PETERS, Photo-Lithographer, Washington, D. C.

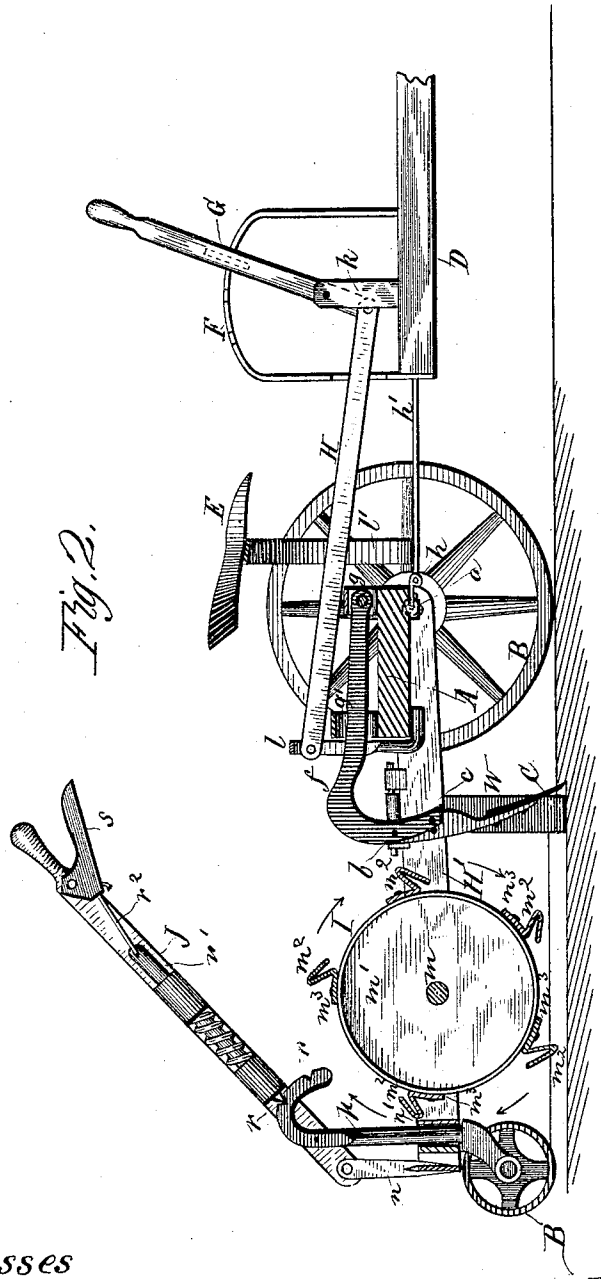
(No Model.) 3 Sheets—Sheet 2.

T. W. BEAL.

LAND MARKER.

No. 328,561. Patented Oct. 20, 1885.

Fig. 2.



Witnesses

B. C. Fenwick.
R. Lincoln Fenwick.

Inventor:

Thomas W. Beal
by his Attys
Fenwick & Lawrence.
Successors to
Marcus Fenwick & Lawrence

N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.) 3 Sheets—Sheet 3.

T. W. BEAL.

LAND MARKER.

No. 328,561. Patented Oct. 20, 1885.

Fig. 3.

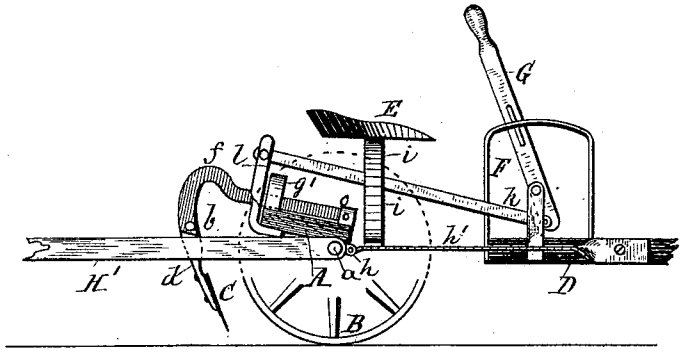
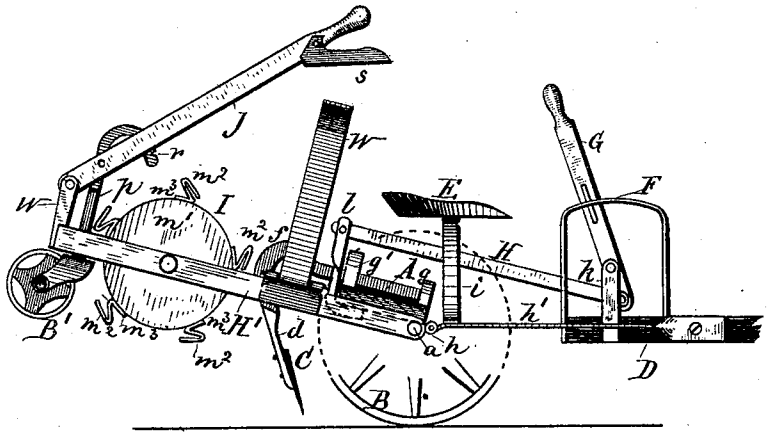


Fig. 4.



Witnesses:

B. C. Fennick
R Lincoln Fennick

Inventor:

Thomas W. Beal
by his Attys
Fennick & Lawrence, Successors to
Wm. Fennick & Lawrence

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS W. BEAL, OF VENICE, ILLINOIS.

LAND-MARKER.

SPECIFICATION forming part of Letters Patent No. 328,561, dated October 20, 1885.

Application filed April 10, 1885. Serial No. 161,805. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. BEAL, a citizen of the United States, residing at Venice, in the county of Madison and State of Illinois, have invented a new and Improved Land-Marker, of which the following is a specification.

My invention relates specially to a machine for marking land with check-rows, or crosses or ridges, but may be used for marking simply across or along fields.

The improvements which I have made consist, first, in the combination, with a supporting-platform carrying teeth or markers and provided with axle-arms which receive the carriage-wheels, of a tongue having a driver's seat mounted upon its hounds or connections, which is connected to the supporting-platform by hinges, which are on about the same horizontal plane as the axle-arms of the platform; second, in the combination, with the supporting-platform carrying suitable front teeth or markers, and with the tongue carrying the driver's seat, of an adjusting mechanism which is attached to the tongue, and by a rod connected to a post of the supporting-platform carrying the front teeth or markers; third, in a combination of oblong guide-loops, the supporting-platform, carriage-wheels, self-adjusting front teeth or markers, hinged tongue, driver's seat, and hand adjusting and locking mechanism; fourth, in a combination, with the front teeth or markers applied on an oscillating support or platform carried on wheels and having a hinged tongue, which supports the driver's seat, and suitable adjusting mechanism, of a revolving cross-row rear marking device, a hinged frame supporting said marking device, a supporting-wheel, and an adjusting mechanism connected with the hinged frame and wheel, and, fifth, in certain other constructions and combinations, as hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of my improved land-marking machine; Fig. 2, a vertical longitudinal section of the same, the caster-wheel being down and the cross-marker lowered, so as to do its work when its bars strike the longitudinal ridges made by the front teeth. Fig. 3 is a broken side view illustrating the manner in which the platform and front marking-teeth can be raised without inclining the driver's seat or the tongue, and Fig. 4 is also a broken side view illustrating the manner in which both the front teeth or markers and rear cross-markers can be raised without affecting the driver's seat.

In the drawings, A is a broad stout supporting-platform, of wood or other suitable material, having short metallic axle-arms *a* applied to its lower front corners, said arms being screwed to the under side of the platform in the well-known way of fastening such axle-arms. If desired, a continuous axle-bar with an arm, *a*, on each end, may be clipped or otherwise suitably fastened to the under side of the platform.

B B are carriage-wheels applied on the arms *a* in the usual manner.

C are front marking-teeth attached by pivots *b*, (and shaped so as to turn up the soil,) and by the usual wooden brake or safety pins, *c*, to standards *d* of bent beams *f*, there being two or more holes for each brake-pin, whereby the teeth can be adjusted for shallow or deep marking. The beams *f* are pivoted by their front ends to loop-standards *g* of the platform, and guided in rear of these standards by oblong loop-standards g' g^2 of the platform, as shown. Each beam *f*, with its tooth C, can rise and fall in a loop, g', independently of a fellow-beam, *f*, so as to pass an obstruction; but all of the beams *f* can be raised together with the supporting-platform A. In the drawings, four beams, *f*, and five loops, g' g^2, are represented. The extra loop g^2 enables the farmer to change the number of marking-teeth from four to three, it only being necessary to take out the two intermediate beams and lay one of them aside, and place the other in the central loop, g^2, which is shown in Fig. 1 as not being occupied. This construction of the marker adapts it for either vegetables grown in rows at short distances apart—as, for instance, cabbage or potatoes—or for corn, which is grown in rows farther apart, the four teeth being used for the first kind of crops and the three for the latter. The number of teeth and loops may be changed as circumstances require.

To the front lower edge of the supporting-platform A, the tongue D is connected loosely by hinges *h*, which are applied to the hounds *h'* and the supporting-platform, as shown. The

hinges *h* lie parallel and about on the same horizontal plane with the axle-arms, and thus the platform in oscillating on its axle-arms will also oscillate on the pins of the hinges *h*, and consequently will not cause the hounds and tongue to change their position. On the hounds of the tongue the standards *i* and the driver's seat E, resting on the same, are firmly placed, and as the tongue is hinged parallel with the platform A the tongue can be vibrated independently of the platform A or the platform independently of the tongue. This gives the driver a very comfortable seat, and permits the beam to be turned on the axle-arms without having the weight of the driver materially interfere with the operation.

Forward of the driver's seat a notched locking-bow, F, is applied to the tongue, and beneath this bow and fastened to the tongue a standard, *k*, is applied, and to this standard a hand adjusting and locking lever, G, is pivoted, said lever being conveniently located with respect to the driver's seat.

To the lower end of the lever G a rod, H, is pivoted, and by said rod and a pivot-pin the lever is connected to a post or standard, *l*, fastened on the rear portion of the supporting-platform, as shown. By moving the stop of the lever out of a notch of the locking-bow F, and moving the lever backward, the platform, with the front teeth or markers, can be raised, as illustrated in Figs. 3 and 4, and by moving the bar forward the parts can be adjusted as shown in Fig. 2.

On the axle-arms *a a* a rectangular frame, H′, is hung, so as to oscillate thereon. In this frame a rear cross-row marker, I, is arranged to revolve on an axle, *m*, and at the center of the rear bar of the frame a standard, *n*, is applied, and in line with this standard a guide-tube, *n′*, is fastened to said rear bar of the frame.

To the standard *n* a hand-lever, J, extending over toward the driver's seat is pivoted, while in the guide-tube a goose-neck-shaped swiveling standard, *p*, of a caster-wheel, B′, is fitted, so as to allow the frame H′ to slide up and down in a well-known manner. The lever near its fulcrum-pin is pivoted to the goose-neck standard, and by moving the lever up or down the frame carrying the rear marker can be adjusted, or lowered, or raised.

The goose-neck standard is provided with a series of adjusting stop-notches, *r*, and on the side of the lever there is a spring stop-bolt, *r′*, for entering the notches *r*, the same being connected by a rod, r^2, to a thumb-piece, *s*, of the hand-lever J, in the usual manner.

The revolving marker comprises the axle *m*, two rimmed disks, *m′*, set apart, and a series of transverse U-iron marking-bars, m^2, having flanges m^3, by which they are firmly fastened to the rims of the disks, as shown. The bars m^2 may be of such a number and so spaced with reference to the distances apart of the ridges formed by the front teeth or markers, that the cross-rows formed by the bars m^2 may be just equal in width with the longitudinal rows, and perfect check-rowing thus produced.

In turning the machine at the end of each travel across the field the cross-marker is raised by depressing the hand-lever, and retained elevated until the machine starts back. This enables the farmer to lay off his land very perfectly. In starting back the lever is grasped, raised, and controlled by the farmer until the revolving marker descends to the proper position for marking the cross-rows, and then it is locked in position.

If desired, the supporting-platform and its front teeth or markers, as well as the rear marker, can be raised separately or together by the levers, as illustrated in Figs. 3 and 4 of the drawings. Such adjustment may be necessary in passing over stumpy land.

On each side bar of the frame H′ angular auxiliary gages, *w*, as usual, are hinged, and one or the other of these may be used in going back and forth over the field for making gage-marks.

What I claim as my invention is—

1. The combination, with the supporting-platform A, mounted on the carriage-wheels B, and carrying suitable teeth or markers, C, and provided with axle-arms or an axle-bar having arms which receive the wheels B, of a tongue having a driver's seat mounted upon its connections, which is loosely connected to the supporting-platform by hinges parallel with and on about the same horizontal plane as the axle-arms, substantially as and for the purpose described.

2. The combination, with the supporting-platform A, mounted on carriage-wheels B, and carrying front teeth or markers, C, and with the tongue carrying the driver's seat, of the adjusting-lever and locking-bar applied on the tongue, connecting rod and standard, substantially as and for the purpose described.

3. The combination of oblong guide-loops *g′*, supporting-platform, carriage-wheels, independently self-adjusting front teeth or markers, hinged tongue, driver's seat, and suitable hand adjusting and locking devices, substantially as described.

4. The combination, with the front teeth or markers, C, applied on an oscillating support or platform carried on the wheels B, and having a hinged tongue on which the driver's seat is mounted, and suitable adjusting and locking devices, of a revolving cross-row rear-marker applied in a frame hinged to the axle-arms *a* of the platform A, and which is provided with a supporting-wheel, B′, and adjusting and locking devices, substantially as described.

5. The combination of the rear marker consisting of transverse spaced bars, disks, and an axle, the hinged frame, the caster-wheel having a notched goose-neck, adjusting standard, the hand-lever, locking-bolt, front platform carrying suitable teeth or markers, C, and

a hinged tongue carrying the seat for the driver, substantially as described.

6. The skeleton rear marker formed of an axle, transverse U-iron bars having bolting-flanges, and applied in a suitable adjustable frame of a land-marker, substantially as described.

7. The combination of the hand adjusting and locking lever, hinged frame carrying a revolving cross-row marker, and attached to the axle-arms of the front marker-platform, A, and the adjustable goose-neck standard carrying a caster-wheel, substantially as described.

8. The auxiliary vacant loop g^2, in combination with platform A, occupied loops g', and markers C, substantially as described.

THOMAS W. BEAL.

Witnesses:
SILAS H. WOOLDRIDGE,
BENJAMIN V. MERRITT.