No. 657,897. Patented Sept. 11, 1900.

C. E. SMITH.

GUIDE MARKER FOR PLANTERS.

(Application filed July 28, 1900.)

(No Model.)

Fig. 1.

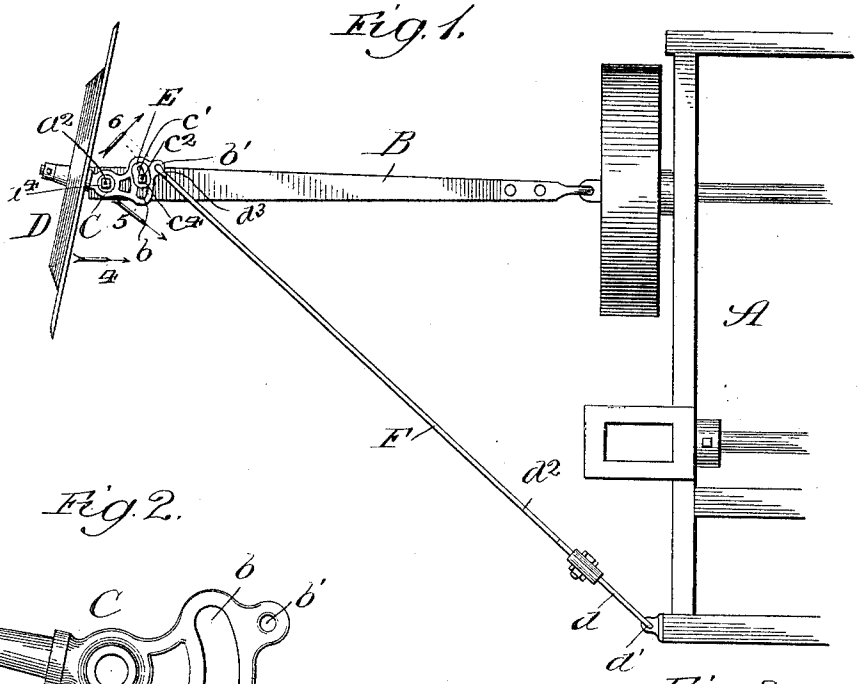


Fig. 2.

Fig. 8.

Fig. 7.

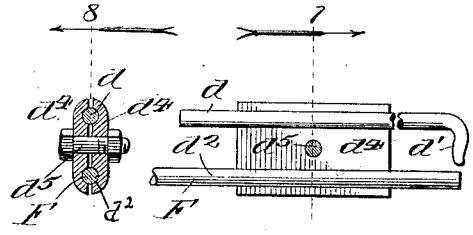


Fig. 3.

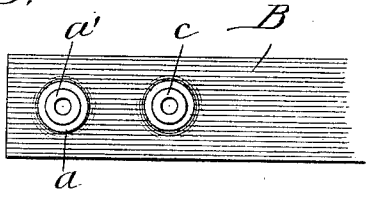


Fig. 4.

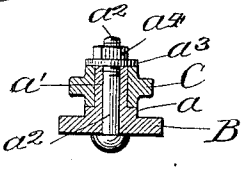


Fig. 5.

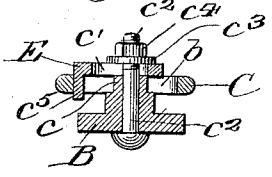
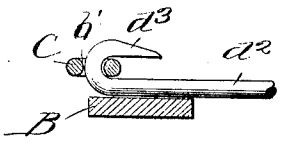


Fig. 6.



Witnesses.
Chas. E. Gaylord,
John Enders Jr.

Inventor:
Conrad E. Smith.
By Dyrenforth & Dyrenforth & Lee,
Attys.

UNITED STATES PATENT OFFICE.

CONRAD E. SMITH, OF PLAINFIELD, ILLINOIS.

GUIDE-MARKER FOR PLANTERS.

SPECIFICATION forming part of Letters Patent No. 657,897, dated September 11, 1900.

Application filed July 28, 1900. Serial No. 25,134. (No model.)

To all whom it may concern:

Be it known that I, CONRAD E. SMITH, a citizen of the United States, residing at Plainfield, in the county of Will and State of Illinois, have invented a new and useful Improvement in Guide-Markers, of which the following is a specification.

My present invention is an improvement upon the marker for planters shown in Patent No. 607,887, granted to me July 26, 1898.

My primary object is to provide improved means for attaching the marking-disk, so as to permit, in an improved manner, the desired relative movements between disk and planter during turning or backing.

In the accompanying drawings, illustrating my invention in its preferred form, Figure 1 represents a portion of a planter to which is attached my improved marker; Fig. 2, a detached view of the journal-arm for the marking-disk; Fig. 3, a view of the outer end of the marker and bar; Figs. 4, 5, and 6, sections taken as indicated at the corresponding lines of Fig. 1; and Figs. 7 and 8, sectional views of the connection between the parts of an extensible connecting rod or brace, each section being taken at the corresponding line of the other figure.

A represents a portion of a planter; B, a marker-bar; C, a journal-arm pivoted to the outer end of said bar; D, a marker-disk journaled on the outer end of said arm; E, an adjustable stop for the inner end of the arm C, and F an extensible connecting rod or brace. As here shown, the inner end of the bar B is pivotally connected to the end of the planter-axle, the front end of the brace-rod is connected with the planter-frame in front of the wheel, and the rear end of said rod is connected with the inner end of the movable arm C.

In Fig. 4 is shown the pivotal connection between the arm C and the bar B. Said bar is provided with a boss a and a stud a', through which passes a bolt a^2, supplied with a washer a^3 and a nut a^4. The washer bears firmly upon the upper end of the stud a' and projects over the pivotal boss of the arm C, as shown. The inner end of the arm C is provided with a curved slot b and a perforation b'. The slot receives a stop-supporting stud c and the downturned end of the stop E, and the perforation receives the rear end of the brace-rod. The stop is provided with a slot c' and is adjustably secured to the stud c by a bolt c^2, washer c^3, and nut c^4. The downturned rear end of the stop is represented by c^5. It moves freely in the slot b till the rear end of said slot is engaged or till the stud c engages the front end of said slot, according to direction of movement. By adjusting the stop E, which is virtually a projection from the bar B, the angle of the marker-disk may be regulated at will. When the planter is drawn forwardly, the marking-disk assumes an acute angle with relation to the bar B, the acuteness of the angle varying with the position of the stop E, which, it will be seen, determines the distance the outer end of the arm C can drop backward, the inner end of said arm being drawn forward, of course, by the brace-rod. When the machine is backed, the rigid brace F swings the arm C till the marker-disk is parallel to the planter-wheels, at which time the stud c is in engagement with the front end of the slot b, after which the disk runs backwardly properly.

The brace F is of improved construction and comprises a front section d, having a downturned hook d' at its front end, a rear section d^2, having an upturned end d^3, and clamping-blocks d^4, grooved to receive the adjacent ends of said sections and secured together by a bolt d^5. Thus the rod is capable of adjustment in length, so that the end of the slot b will be in engagement with the projection c^5 of the stop when the bar B is at right angles to the side of the planter and the stop itself set in any desired position.

It is noteworthy that the arm C is capable of use on a marker at either side of the planter.

It is regarded within the scope of my invention to replace the marking-disk by a marking-head of any desired form. The gist of the broad idea of the invention is a marking-head automatically movable with relation to the marker-bar.

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

1. In a marker for planters the combination of a marker-bar, means for connecting said bar to the planter, and a marking-head secured to the outer end of the marker-bar and

automatically adjustable with relation to said bar, substantially as described.

2. In a marker for planters the combination of a marker-bar, means for connecting said bar to the planter, an arm pivotally secured to the outer end of said bar, a marking-head secured to the outer end of said arm, and a brace connecting the inner end of said arm to the planter, substantially as described.

3. The combination with a marker-bar of the character described, an arm pivoted to the outer end thereof, a marking-head secured to the outer end of said arm, and stops for limiting the movement of said arm relatively to said bar, substantially as described.

4. The combination with a marker-bar of the character described, of an arm pivoted to the outer end thereof, a marking-head secured to the outer end of said arm and an adjustable stop serving to limit the movement of said arm relatively to said bar in one direction, substantially as described.

5. The combination of a marker-bar of the character described, an arm pivoted to the outer end thereof, a marking-head secured to the outer end of said arm, and an adjustable stop carried by said bar, said arm and stop being provided with slot and projection for limiting the movement of the arm, substantially as and for the purpose set forth.

6. The combination of a marker-bar of the character described, a marking-head connected with the outer end thereof, and an extensible rigid brace-rod provided at its front end with means for connecting it with the planter, substantially as described.

CONRAD E. SMITH.

In presence of—
D. W. LEE,
A. D. BACCI.