No. 681,016. Patented Aug. 20, 1901.

A. A. CLARK.

GROUND MARKER.

(Application filed July 5, 1901.)

(No Model.)

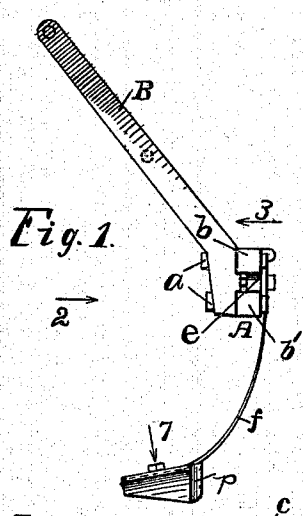


Fig. 1.

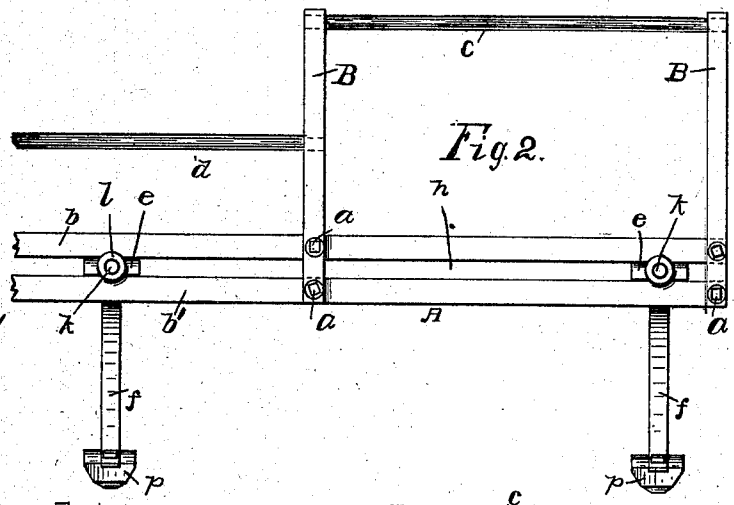


Fig. 2.

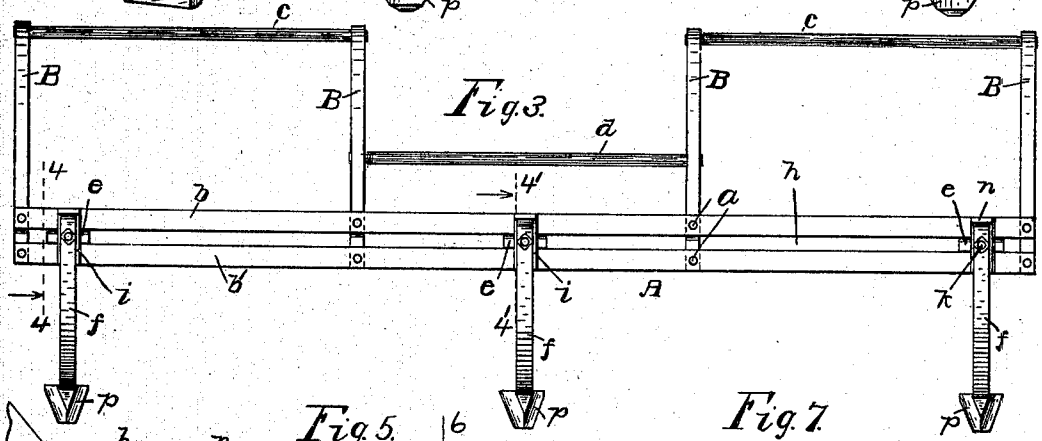


Fig. 3.

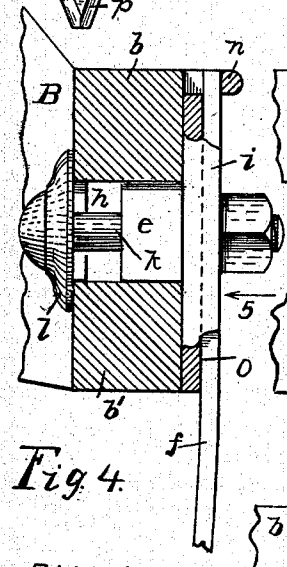


Fig. 4.

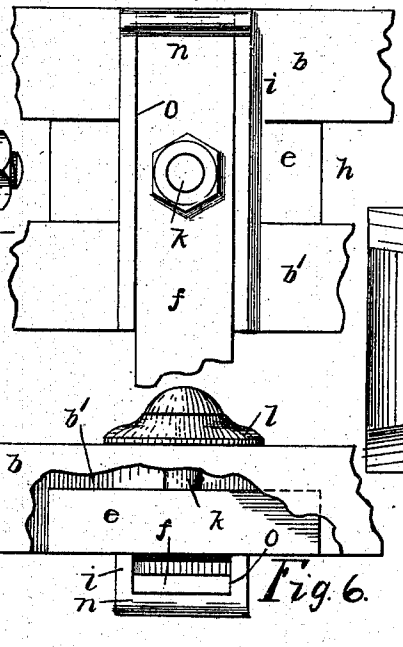


Fig. 5.

Fig. 6.

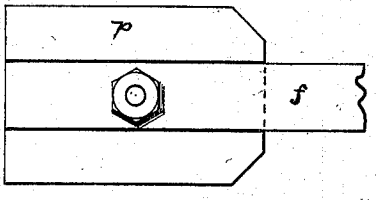


Fig. 7.

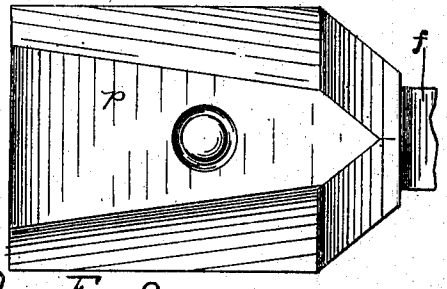


Fig. 8.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ADELBERT A. CLARK, OF MARION, NEW YORK.

GROUND-MARKER.

SPECIFICATION forming part of Letters Patent No. 681,016, dated August 20, 1901.

Application filed July 5, 1901. Serial No. 67,162. (No model.)

To all whom it may concern:

Be it known that I, ADELBERT A. CLARK, of Marion, in the county of Wayne and State of New York, have invented a new and useful Improvement in Ground-Markers, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention is a device for marking ground for planting, the same consisting of the structure involving the improved features and devices hereinafter fully described, and more particularly pointed out in the claims.

One object of the invention is to provide better and more convenient means for guiding and controlling the marker as it moves over the ground and for lifting it from the ground and carrying it around at the ends of the rows for the purpose of placing it for marking new rows.

Another object of the invention is to provide a marking-shoe of improved form for better marking or furrowing the ground and for holding the shoe to better operate on rough or uneven ground.

Other objects and advantages of the invention will be brought out and made to appear in the following specification, reference being had to the accompanying drawings, illustrating the invention, in which—

Figure 1 is a side elevation of the device. Fig. 2 is a rear elevation seen as indicated by arrow 2 in Fig. 1, parts being broken away. Fig. 3 is a front elevation seen as indicated by arrow 3 in Fig. 1. Fig. 4 is a side elevation of parts, the body being vertically sectioned, as on the dotted line 4 4 in Fig. 3, and the tooth-head sectioned in part on the dotted line 4′ 4′ in Fig. 3, parts being broken away. Fig. 5 is a front view of parts seen as indicated by arrow 5 in Fig. 4, with parts broken away. Fig. 6 is a plan of a tooth-head and associated parts seen as indicated by arrow 6 in Fig. 5, with parts broken away. Figs. 7 and 8 are top and bottom views, respectively, of a shoe, better showing the form thereof. Figs. 1 and 2 are drawn to a scale about one-tenth full size; Fig. 3, to a scale about one-twelfth size; Fig. 7, to a scale about one-third size, and the remaining figures to a scale about one-half size.

Referring to the parts shown, A, Figs. 1, 2, and 3, is the body of the device, consisting, preferably, of parallel horizontal members or sections *b b′*, one over the other.

B represents a series of backwardly-inclined standards secured by bolts *a* to the members *b b′* of the body A, said standards serving to hold the members of the body relatively in place one with the other. At their upper ends the standards hold horizontal hand bars or rails *c c* convenient to be grasped by the attendant in guiding and controlling the marker, said bars or rails being of a height from the ground to form easy rests for the hands. The standards are in vertical planes and so placed upon the body as to divide the distance between the extreme ends thereof into three about equal parts, as shown, one being at either end. The rails *c c* span, respectively, the two outer or extreme spaces between the standards, thus enabling the attendant when using the marker to walk at either side of the line, followed by the horse, so that his view of the work in front may not be obstructed.

The standards B also hold an intermediate horizontal carrying bar or rail *d*, Fig. 3, placed lower than the bars *c c* and in position to be grasped by the hand when it is necessary or convenient for the attendant to raise the marker clear from the ground. This lifting of the marker is necessary, for example, when carrying it around or turning at the ends of the rows after crossing the field and placing it in position for marking a new set of rows. The carrying-bar *d* being at the middle of the machine enables the attendant to balance the latter in his hand while carrying it, as stated.

The arms or teeth *f* are provided with heads *e*, (fully shown in Figs. 4, 5, and 6,) occupying the opening or race *h* between the members *b b′* of the body A. These heads are formed with vertical front parts or rests *i* for the teeth *f*, recessed at *o* for receiving the teeth, clamping-bolts *k*, passing through the parts and through washers *l* at the rear of the body A, serving to hold the teeth in place on the body. By loosening the bolts *k* the teeth may be moved laterally along the body A as may be at any time needed. The heads *e* are formed with cross ribs or bars *n* at the top, spanning the recesses *o*, back of which ribs

the teeth *f* pass when in place in the respective heads. These cross-ribs help to take the stress brought upon the teeth from the resistance offered by the ground as the machine advances, that would otherwise be brought wholly upon the bolts *k*.

The marking-teeth are formed with detachable shoes *p*, preferably of hard wood, secured to place by bolts, which furrow the ground as the machine moves along. The shanks of the teeth *f* are made of spring-steel to better allow the shoes to lift or spring upward when encountering obstacles, as stones or mounds or ridges of earth.

Thills of ordinary kind (not shown) are secured to the body A by simple and ordinary means, by means of which to attach a horse for drawing the marker.

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

1. A device for marking the ground, having a body, standards secured to the body, hand-rails of different elevation carried by the standards, and marking-teeth secured to the body, substantially as and for the purpose set forth.

2. A ground-marker having a body formed of members or sections, standards secured to said sections or members respectively to hold them relatively in place, extreme and mean hand-rails held by the standards at different elevations, and teeth for marking the ground, carried by the body, substantially as shown and described.

3. A ground-marker having a body formed of two parallel sections, standards occupying vertical planes, secured to each of said sections and dividing the distance between the extreme ends of the body into three parts, hand-rails held by the standards to span each of said three spaces between the standards, the said rails crossing the two outer spaces being at the same level and above the rail spanning the intermediate space, and marking-teeth carried by the body, substantially as shown and described.

In witness whereof I have hereunto set my hand.

ADELBERT A. CLARK.

Witnesses:
JOHN A. CLARK,
S. B. DEAN.