No. 782,381. PATENTED FEB. 14, 1905.

J. F. CALLAHAN.

MARKING ATTACHMENT FOR CORN PLANTERS.

APPLICATION FILED NOV. 10, 1904.

2 SHEETS—SHEET 1.

Fig. 4.

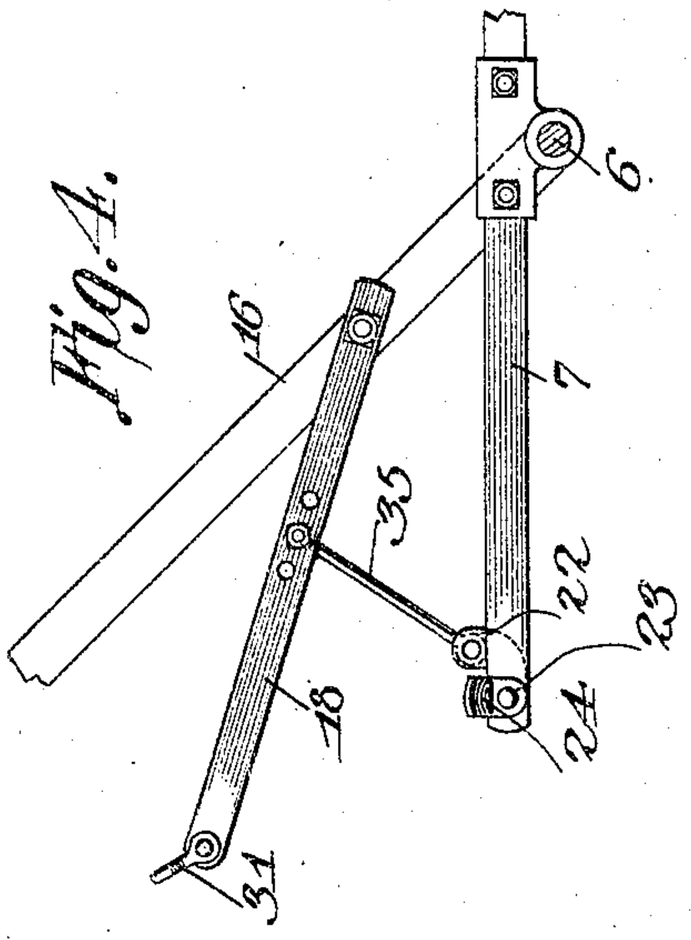

Fig. 1.

Witnesses
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2 SHEETS—SHEET 2.

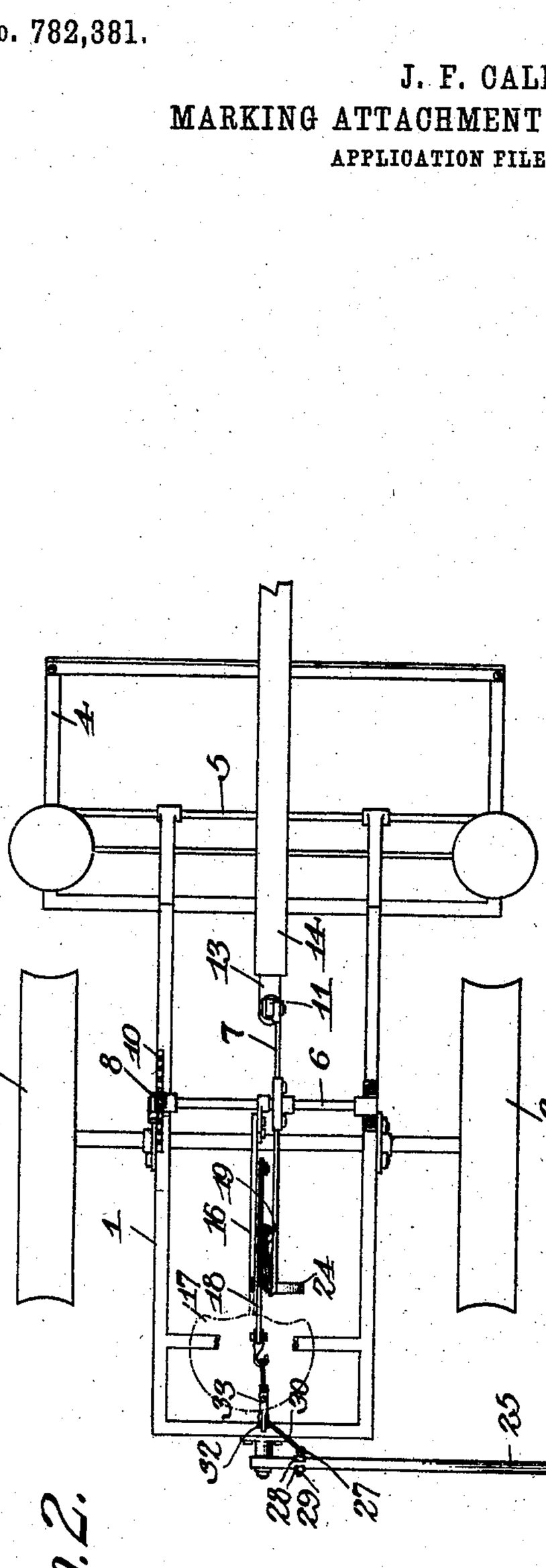

Fig. 2.

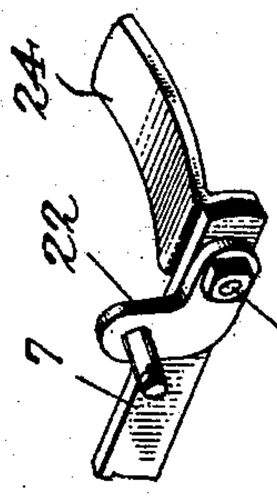

Fig. 5.

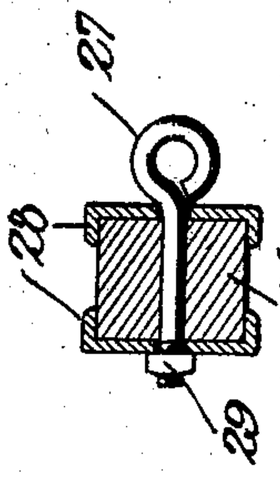

Fig. 3.

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PHOTO-LITHOGRAPHED BY JARRETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 782,381. Patented February 14, 1905.

UNITED STATES PATENT OFFICE.

JOHN FRANCIS CALLAHAN, OF SAC CITY, IOWA.

MARKING ATTACHMENT FOR CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 782,381, dated February 14, 1905.

Application filed November 10, 1904. Serial No. 232,194.

To all whom it may concern:

Be it known that I, JOHN FRANCIS CALLAHAN, a citizen of the United States, residing at Sac City, in the county of Sac and State of Iowa, have invented a new and useful Marking Attachment for Corn-Planters, of which the following is a specification.

This invention relates to marking attachments for corn-planters; and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these ends in view the invention consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of embodiment of the invention, it being however understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes and alteration may be made within the scope of the invention and without departing from the spirit or sacrificing the efficiency of the same.

In said drawings, Figure 1 is a sectional elevation of a conventional form of check-row corn-planter having the invention applied thereto. Fig. 2 is a top plan view of the same on a reduced scale. Fig. 3 is a sectional detail view taken through the marker-staff and showing the means for connecting the same with the lifting element. Fig. 4 is a detail view in elevation, illustrating a slight modification; and Fig. 5 is a perspective detail view of said modification.

Corresponding parts in the several figures are indicated by like character of reference.

The present invention is capable of being applied to corn-planters of various makes and of different constructions, and in the drawings it has been shown applied to an ordinary conventional corn-planter, of which—

1 designates the main or wheel frame, 2 the axle, 3 3 the transporting-wheels, and 4 the runner-frame, which is pivotally connected at 5 with the front ends of the side beams of the main frame. The main frame supports a transverse shaft 6, upon which is mounted a foot-lever 7 and a manually-operable adjusting hand-lever 8, having a spring-actuated dog or catch 9, adapted to engage a rack-segment 10, which is suitably supported concentric with the shaft 6. The front end of the foot-lever is provided with an arm or bracket 11, which is connected, by means of a link 12, with a bracket 13, extending rearwardly from the tongue 14, which latter is supported upon the runner-frame. The link 12 is in the nature of a bolt which extends through the bracket 13, secured to tongue 14, and upon said bolt is coiled a spring 15, whereby a flexible support for the rear end of the tongue is provided.

Upon the main frame is mounted a seat-supporting bar 16, serving in part to support the seat 17. Pivotally connected with the seat-bar 16 is a lever 18 with which is adjustably connected a link 19, having a slot 20, which slidably engages a bolt 23, which also serves for the attachment of a treadle 24.

Pivotally connected with the rear side of the main frame is the marker-staff 25, which is provided at its outer extremity with a scribe 26, adapted to engage the ground and to make a continuous mark or furrow therein, said scribe being double-pointed, so that it will engage the ground in any position that may be occupied by the marker-staff when the latter is in position for operation.

27 is an eyebolt extending transversely through the marker-staff and through a pair of flanged clamping-plates 28, which embrace opposite sides of the staff and which are firmly secured therein by means of the eyebolt 27 and the nut 29 upon said eyebolt. The point of the marker-staff which is weakened by the perforation for the passage of the eyebolt 27 will be reinforced by the clamping-plates 28 and danger of breakage at this point will consequently be avoided. The eyebolt 27 serves for the attachment of one end of a rope, chain, or similar flexible connecting element 30, the other end of which is connected with the free end of the lever 18 by means of a link 31, pivotally connected with the free end of said lever. The flexible element 30 is guided over a sheave 32, supported by the seat 17. In the drawings the seat has been shown as provided with a rearwardly-extending bracket 33, carrying

the sheave 32; but this bracket may be dispensed with, if desired.

Under the modification illustrated in Figs. 4 and 5 of the drawings the slotted connecting-link 19 is dispensed with and in the place thereof an ordinary connecting-rod 35 is employed, said rod serving to connect the lever 18 with a bell-crank or elbow member 22, which is pivotally connected by the bolt 23 with the foot-lever 7.

The operation of this invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. When the machine is in operation, the scribe at the end of the marker-staff will indent the ground and form a furrow to guide the operator on the return trip. When the machine is to be turned at the end of the field, the operator after releasing the catch 9 from the segment-rack 10 operates the hand and foot-levers to rock the shaft 6 for the purpose of tilting the runner-frame. By the same operation the lever 18 is operated by means of the link connecting it with the foot-lever, and the free end of the marker-staff will be thrown to an approximately vertical position, where it is temporarily retained while the machine is being turned by permitting the catch 9 to engage the rack-segment. After turning the machine the catch of the hand-lever is again released, and the hand and foot levers are operated to restore the runner-frame to its operative position, the free end of the lever 18 being simultaneously elevated, thus permitting the marker-staff to drop, said marker-staff being pushed in the proper direction by the hand of the driver.

This device, as will be readily seen, is extremely simple and free from all unnecessary complications. It may at a small expense be applied to any ordinary form of corn-planter, and the marking device is operated by the same means which are provided for the purpose of tilting the runner-frame when the machine is being turned at the end of the field.

If during the progress of the machine over the field it becomes desirable to elevate the marker from contact with the ground without tilting the runner-frame, this may be easily accomplished by the operator placing his foot upon and depressing the lever 18, whereby the marker is directly actuated. The slot 20 in the link 19, or in the modified construction illustrated in Figs. 4 and 5 the elbow member 22, will permit this operation to be performed without disturbing the position of the lever 7.

Having thus described the invention, what is claimed is—

1. In a corn-planter, a marker-staff connected pivotally with the rear end of the main frame, a stationary support, a lever pivoted to said support, a flexible element connecting the free end of said lever with the marker-staff, a guide-pulley for said flexible element supported above the free end of the lever, and operating means for the latter including a rock-shaft, a lever connected with said rock-shaft, and a link connecting said lever adjustably with the lever having connection with the marker-staff.

2. In a corn-planter, a marker-staff connected pivotally with the rear end of the main frame, a seat-supporting bar, a lever connected pivotally with said bar, a flexible element connecting the free end of said lever with the marker-staff, a guide-pulley for said flexible element supported by the seat, and operating means including a rock-shaft supported upon the main frame, a lever connected with said rock-shaft, and a link connecting the latter lever with the lever fulcrumed upon the seat-supporting bar.

3. In a corn-planter, a main frame, a runner-frame having a tongue supported thereon, a rock-shaft supported upon the main frame, a foot-lever connected with said rock-shaft, connecting means between the front end of the foot-lever and the rear end of the tongue, a hand-lever upon the rock-shaft having a catch, a segment-rack engaged by said catch, a marker-staff connected pivotally with the rear end of the main frame, a seat-support upon the main frame, a lever pivoted upon said support, a flexible element connecting the free end of said lever with the marker-staff, a guide for said flexible element supported by the seat; and a link connecting the lever pivoted upon the seat-support with the rear end of the foot-lever.

4. In a corn-planter, a marker-staff connected pivotally with the rear end of the main frame, a seat-support upon the main frame, a lever pivoted upon said seat-support, a link pivoted at the rear end of said lever, a suitably-guided flexible element connecting said link with the marker-staff, a rock-shaft supported upon the main frame, a foot-lever upon said rock-shaft, an elbow-lever upon said foot-lever having a laterally-extending bolt, and a link connected pivotally with the lever pivoted upon the seat-support and with the laterally-extending bolt of the elbow member.

5. In a corn-planter, a marker-staff connected pivotally with the rear end of the main frame, flanged clamping-plates engaging opposite sides of said marker-staff, an eyebolt extending through said clamping-plates and staff, a tightening-nut upon said bolt, a seat-support upon the main frame, a lever pivoted upon said seat-support, a link pivoted at the free end of said lever, a suitably-guided flexible element connecting said link with the eye-bolt upon the marker-staff, and operating means including a foot-lever which serves also to effect the tilting of the runner-frame, and a link connecting said foot-lever with the lever pivoted upon the seat-support.

6. In a corn-planter, a marker-staff connected pivotally with the rear end of the main

frame, a seat-supporting bar, a lever connected pivotally with said bar, a flexible element connecting the free end of said lever with the marker-staff, and a guide-pulley for said flexible element supported by the seat.

7. In a corn-planter, a marker-staff connected pivotally with the rear end of the main frame, a seat-supporting bar, a lever connected pivotally with said bar, a flexible element connecting the free end of said lever with the marker-staff, a guide-pulley for said flexible element supported by the seat, an operating means including a rock-shaft supported upon the main frame, a lever connected with said rock-shaft, and a yieldable connection between said lever and the lever supported upon the seat-bar.

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

JOHN FRANCIS CALLAHAN.

Witnesses:

MATH. DRILLING,

C. R. SIMMONS.