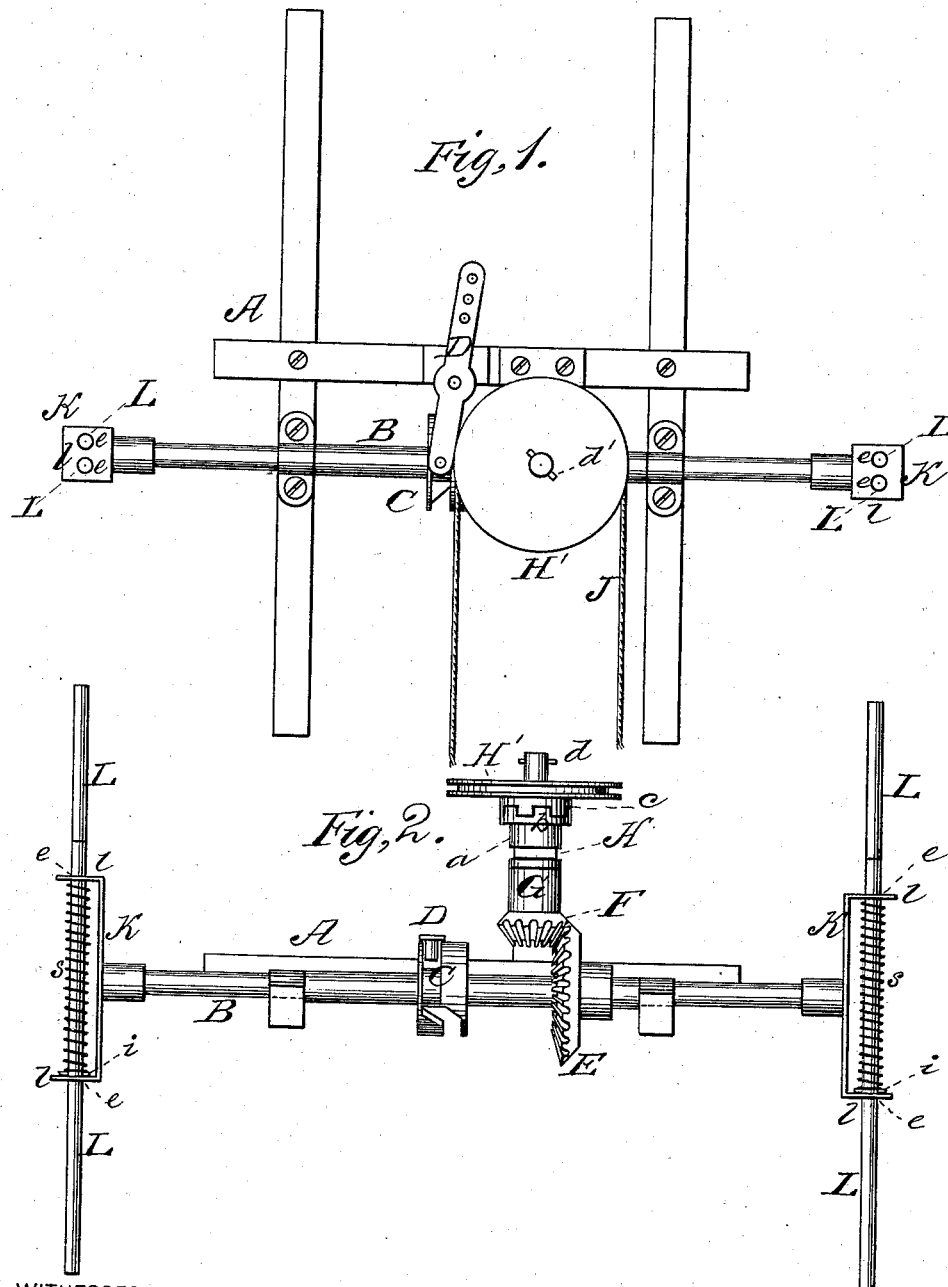


W. L. PHILLIPS.
 Check-Row Attachment for Corn-Planters.
 No. 217,401. Patented July 8, 1879.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM L. PHILLIPS, OF OTTAWA, ILLINOIS.

IMPROVEMENT IN CHECK-ROWER ATTACHMENTS FOR CORN-PLANTERS.

Specification forming part of Letters Patent No. **217,401**, dated July 8, 1879; application filed December 14, 1878.

To all whom it may concern:

Be it known that I, W. L. PHILLIPS, of Ottawa, in the county of La Salle and State of Illinois, have invented a new and valuable Improvement in Check-Rower Attachments for Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top view of my improved attachment for corn-planters, and Fig. 2 is an end view of the same.

This invention has relation to improvements in check-rower attachments for corn-planters; and the nature of the invention consists in a transverse shaft journaled in the frame, which shaft is provided at each end with endwise-yielding rods, that are brought alternately by the rotation of said shaft in contact with the ground, and at its middle portion with a cam actuating the seed-slide, the said shaft having also a bevel-gear, engaging a similar gear upon an upright shaft that has at its upper end a pulley, and is actuated by a rope passing around said pulley and reaching across the field, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates the frame of a corn-planter, mounted in the usual way upon transporting-wheels, and carrying at each side a seed-box, the valves of which are alternately opened and closed by a transverse slide. These features are old and well-known, and I make no claim thereto.

B indicates a shaft extending across the frame, and provided at or near the middle of its length with a cam, C. This is engaged by the lever D, fulcrumed on the frame and pivoted at its front end to the seed-slide aforesaid. The rotation of shaft B, therefore, causes the slide to reciprocate horizontally and seed to be dropped into the hills.

E indicates a bevel-gear keyed or otherwise secured on shaft B, and engaging a similar

gear, F, upon a vertical shaft, G, having its bearings in a standard, H, upon said frame. This shaft has near its end a sleeve, *a*, the extremity of which is ratcheted, as shown at *b*, and carries outside of said sleeve a pulley-wheel, H', the hub *c* of which is correspondingly ratcheted, and is engaged therewith, thus locking the said pulley to the shaft G. Rotary motion is imparted to this shaft, and thence through gears E F to shaft B, by means of a rope, J, passing around said pulley and extending across the field. This pulley is removable from its shaft by taking out a key or pin, *d*, and I may substitute therefor a pulley of greater or less diameter, according to the space between the hills sought to be obtained.

At each end of the shaft B is secured a metallic cross-plate, K, having at its extremities the lugs *l*, parallel to each other. In these lugs are formed apertures *e e*, the one above the other, designed to receive the marking-rods L. These are usually of iron and extend completely through the lugs *l* from side to side, as shown in Fig. 2, and are provided in the space between said lugs with coil-springs *s*. These are coiled around the marking-rods and may be secured at one end thereto, though a simple pin, *i*, extending through them and preventing the same from escaping from the cross-pieces, will be amply sufficient. The ends of these rods at each rotation of shaft B strike against the ground and form an impression therein, which indicates the position of the hill.

Should the rods at any time strike against a stone or stump or other resisting object, springs *s* readily yield and allow the said rods to give way endwise, thus preventing them from being bent or broken, and the various parts of the planter attachment from being unduly strained.

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

1. The combination, with the frame A, the shaft B, having cam C, actuating the seed-slide, the end arms K, the endwise-yielding rods L, and bevel-gear E, of an upright shaft,

G, having bevel-gear F and driving-pulley H', substantially as specified.

2. The combination, with the driving-shaft B, having the endwise-yielding marker-rods L, a cam, C, and bevel-gear E, of an erect shaft, G, having bevel-gear F, the collar *a* on said shaft, and having ratcheted face *b*, and the driving-pulley H', having corresponding ratchet *c*, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM L. PHILLIPS.

Witnesses:

WM. OSMAN,

J. W. McHALE.