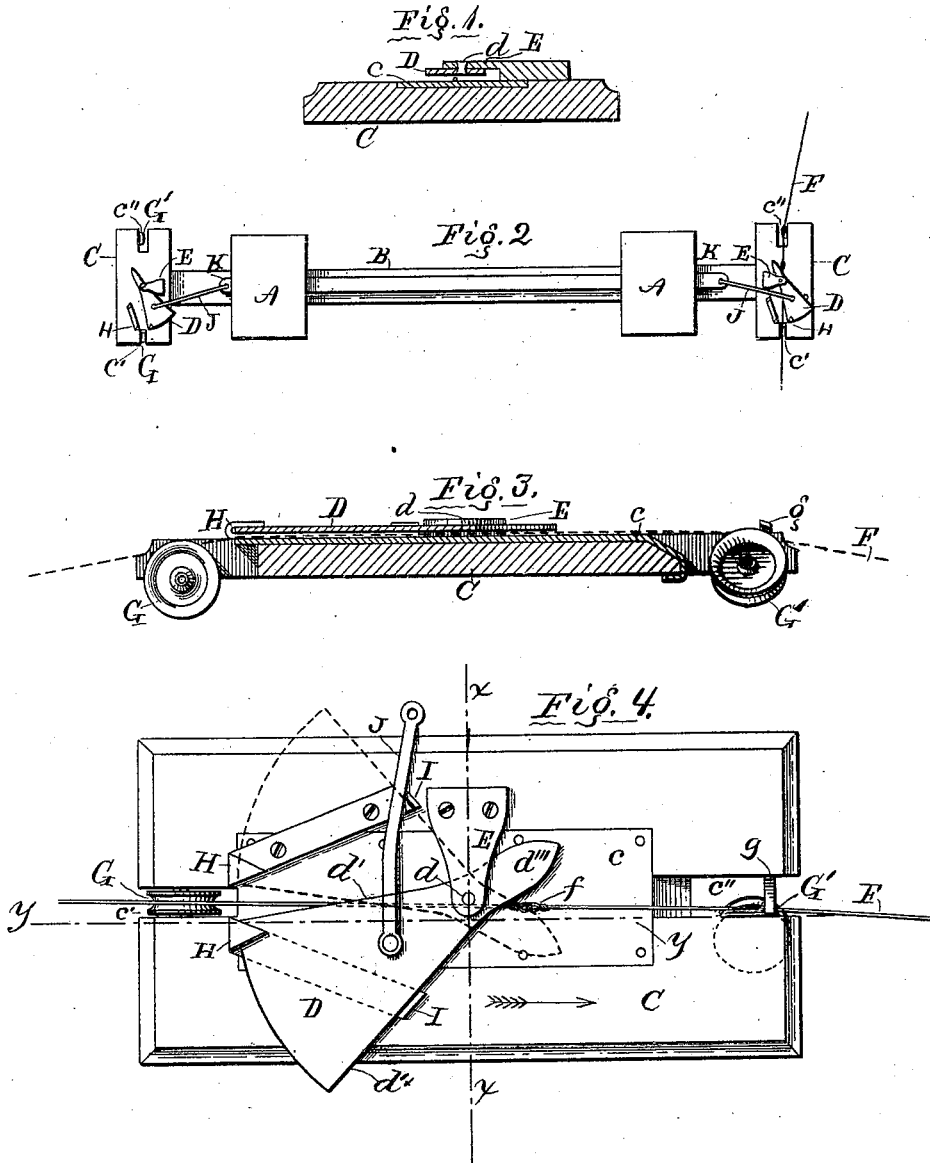


E. W. QUINCY.
 Check-Row Attachment to Corn-Planter.
 No. 200,407. Patented Feb. 19, 1878.



Witnesses:
 M. H. Barringer
 A. M. Wallum

Inventor:
 Edmund W. Quincy
 (By W. D. Richards
 Atty.)

UNITED STATES PATENT OFFICE.

EDMUND W. QUINCY, OF PEORIA, ILLINOIS, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO JOHN Y. MILLS AND WILLIAM H. MILLS, OF SAME PLACE.

IMPROVEMENT IN CHECK-ROW ATTACHMENTS TO CORN-PLANTERS.

Specification forming part of Letters Patent No. **200,407**, dated February 19, 1878; application filed December 31, 1877.

To all whom it may concern:

Be it known that I, EDMUND W. QUINCY, of Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Check-Row Attachments to Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a sectional view of a construction embodying my invention in the line $x x$ in Fig. 4. Fig. 2 is a reduced top-plan view. Fig. 3 is a sectional view in the line $y y$ in Fig. 4. Fig. 4 is a top-plan view of the principal operative parts of the device.

My invention has reference to attachments to corn-planters for actuating their seeding mechanism, and specially to that class of attachments which are adapted to be operated by a knotted check-row wire or cord.

In machines of this class, as heretofore constructed, the device for receiving motion from the knots on the cord has consisted of either a single forked lever, actuated in one direction by the knots on the wire or cord and in the opposite direction by a retracting spring or weight, or of forked levers arranged on opposite ends of an oscillating arm, or in pairs in some other way, or in a series around a shaft, so that each preceding knot on the wire or cord would actuate one forked lever, and thereby bring the next into position for being actuated by the next succeeding knot.

I am also aware that a single centrally-pivoted lever having both its ends forked or bifurcated has been used, said ends being alternately operated upon by the knotted cord.

My invention consists, first, in the construction and use of a triangular cam, pivoted at one end, and having cam-faces on its opposite sides, said cam being arranged to operate with a knotted check-row cord or wire by direct frictional contact; second, in the construction and use of an oscillating cam, between which and a fixed plate the check-row wire or cord passes, adapting the knots on said wire or

cord to act upon the side or sides of the cam; third, the cam pivoted to an overhanging arm to facilitate removal and replacing of the check-row wire or cord between the cam and the plate; fourth, guards arranged to operate with the cam, the plate, and the check-row wire or cord, so as to guide the wire or cord; fifth, the cam arranged to operate with the knotted cord or wire, and with the plate and stops, to limit the motion of the cam; sixth, the cam made with a projecting end, operating in combination with guides, so as to properly guide the wire or cord to the cam; seventh, the cam arranged to operate with a link which is connected at one end to an oscillating arm, which receives motion direct from the check-row wire or cord, its other end being adapted to connect with the seeding devices of a corn-planter, all as hereinafter more fully set forth.

Referring to the parts by letters, each reference-letter indicates the same part in the different views in the drawings.

Letter A represents the seed-boxes of an ordinary corn-planting machine, and letter B a frame-bar, to which any ordinary check-rower devices are attached, so that they may be seated on the planter by securing the bar B thereto. The bar B extends beyond the seed-boxes A, and has fixed to its outer ends plates C. The plates C may be of metal, or have a metal portion, c , where subject to wear. D is a cam or plate, a curvilinear isosceles triangle in form, as plainly shown at Fig. 4. The cam D is pivoted at d to an overhanging arm, E, which retains it at a distance from the plate C which permits of the passage between the cam and said plate C of the smooth portion of an ordinary check-row wire or cord, F, but will not admit the passage between them of the knots f on said wire. The pivot d is at a point in the cam D, as shown at Fig. 4, which leaves the large end of the cam with its straight cam-faces d' d'' at one side of the pivot and the projecting point d''' at the other side.

G G' are pulleys hung in slots c' c'' in the plate C, to serve as guides to direct the passage of the wire or cord F with reference to the cam D. The pulley G' is preferably inclined, as

shown in the drawings, to facilitate approaching the ends of the rows in planting, and has a guard, *g*, to retain the wire or cord *F* in place. *H H* are guards attached to the plate *C*, one on each side of the slot *c'*, and have their ends turned upward and back over the base end of the triangular cam *D*. *I I* are stops to limit the extent of the oscillations of the cam *D*. *J* is a link, pivoted at one end to the cam *D*, and its other end may be pivoted to the ordinary seed-slide *K*, as shown at Fig. 2; or it may be otherwise connected with the ordinary seeding devices.

In operation the wire or cord *F*, having knots or projections *f* at the distances apart required for the rows of corn transversely with the path of the planter, is stretched across the field in any ordinary manner. The planter then being placed in proper proximity to the wire or cord *F*, and the cam *D* being in the position shown by dotted lines at Fig. 4, the wire or cord *F* may be readily placed in working position between the cam *D* and plate *C* by simply slipping it beneath the free side of said cam *D*. The planter then being drawn along the wire or cord *F* in the direction shown by the arrow at Fig. 4, the first knob *f* will be deflected by the point *d'''*, so as to act upon the face *d'* of the cam *D*, and oscillate the cam over to the position shown by full lines at same figure, in which position the point *d'''* will deflect the next recurring knot *f*, and cause it to act on the cam-face *d''*, and return the cam *D* back to the dotted-line position, and so on continuously until the end of the row is reached, when the cord or wire *F* may be removed by placing the cam *D* in the position shown by dotted lines at Fig. 4, the planter then turned round, and the wire or cord placed to the other side of the planter, and the operation herein described repeated.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a check-row planter, a triangular cam, pivoted at one end, and having cam-faces on its opposite sides, arranged to operate with a knotted check-row cord or wire by direct frictional contact, substantially as and for the purpose specified.

2. In a check-row planter, an oscillating cam, between which and a fixed plate the check-row wire or cord passes, adapting the knots on said wire or cord to act upon the side or sides of the cam, substantially as and for the purpose specified.

3. The cam *D*, pivoted to an overhanging arm, *E*, to facilitate removal and replacing of the check-row wire or cord between the cam and plate *C*, substantially as described, and for the purpose specified.

4. The guards *H*, arranged to operate with the cam *D*, plate *C*, and check-row wire or cord, substantially as described, and for the purpose specified.

5. In a check-row planter, the triangular cam *D*, having cam-faces, as described, and arranged to operate with a knotted check-row rope or wire, and with the plate *C* and stops *I*, substantially as and for the purpose specified.

6. In a check-row planter, the triangular cam *D*, having cam-faces and projecting end *d'''*, as described, and arranged to operate with the guides *G G'* and check-row cord or wire, substantially as and for the purpose specified.

7. In a check-row planter, the triangular cam *D*, having cam-faces, as described, arranged to operate with the link *J* by means of the knotted check-row wire or cord, substantially as and for the purpose specified.

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

EDMUND W. QUINCY.

Witnesses:

SAML. WILKINSON,
J. A. WILKINSON.