(No Model.)

J. K. VOORHEES.

CHECK ROW ATTACHMENT FOR CORN PLANTERS.

No. 351,725. Patented Oct. 26, 1886.

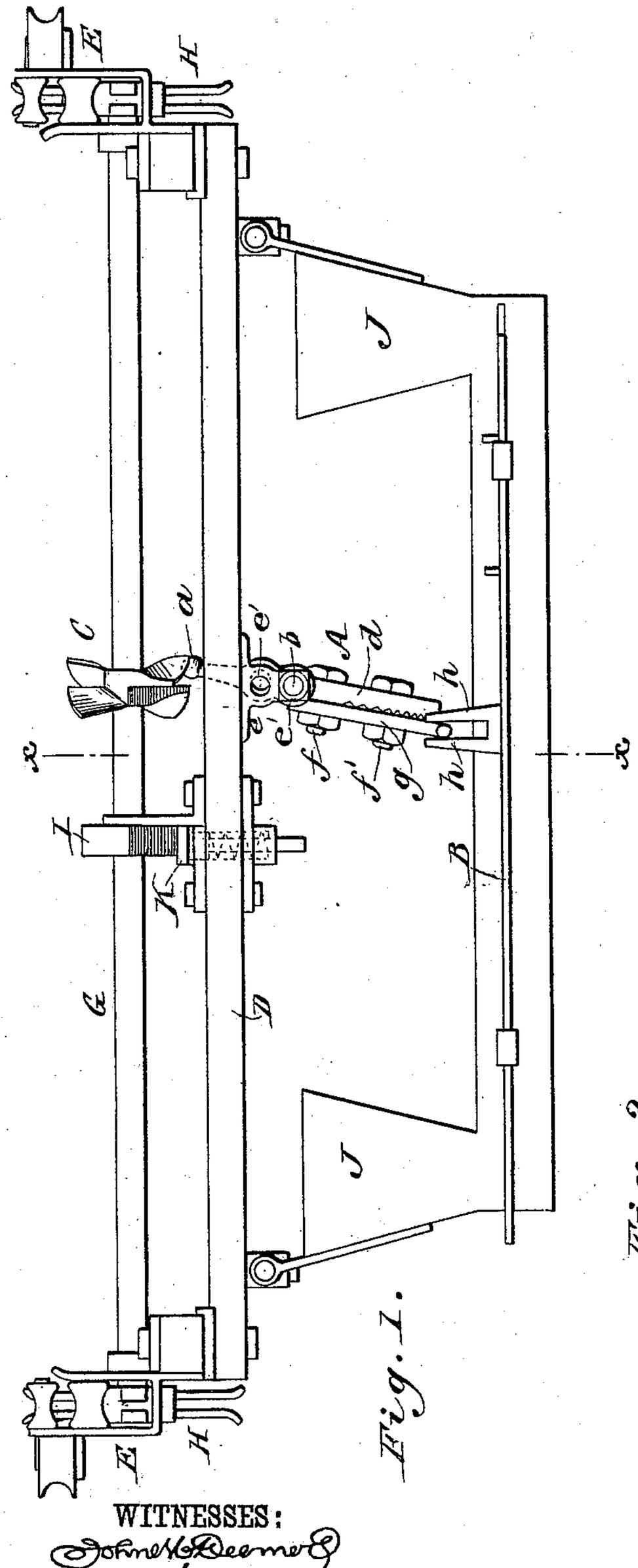

Fig. 1.

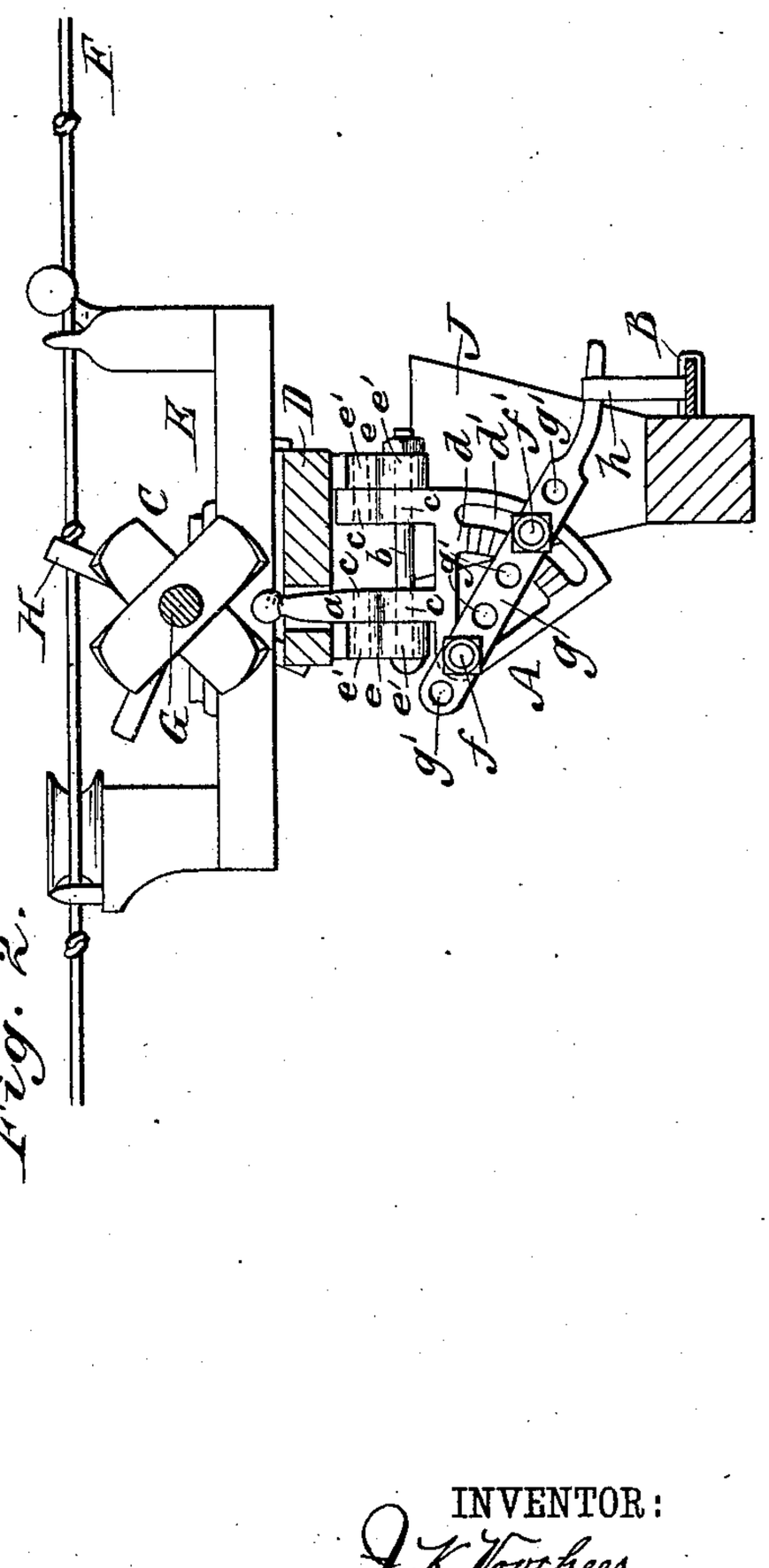

Fig. 2.

WITNESSES:

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JOHN K. VOORHEES, OF PELLA, IOWA.

CHECK-ROW ATTACHMENT FOR CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 351,725, dated October 26, 1886.

Application filed November 24, 1885. Renewed September 29, 1886. Serial No. 214,837. (No model.)

To all whom it may concern:

Be it known that I, JOHN K. VOORHEES, of Pella, in the county of Marion and State of Iowa, have invented a new and Improved Check-Row Attachment for Corn-Planters, of which the following is a full, clear, and exact description.

My present invention relates to certain improvements in that class of check-row attachments for corn-planters shown and described in Letters Patents No. 271,167 and 315,981, dated, respectively, January 23, 1883, and April 14, 1885; and my present invention consists of means for adjusting the stroke of the check-rower to suit the length of the stroke of the drop-plate of the planter, whereby the check-rower may be easily applied to different kinds of corn-planters requiring different lengths of stroke.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a front elevation of my new and improved check-row attachment, and Fig. 2 is a transverse sectional elevation of the same, taken on the line *x x* of Fig. 1.

The intermediate mechanism, A, that operates between the dropping-plate B and the cam-wheel C is made adjustable, so that the alternate side movement of the upwardly-projecting arm *a*, caused by the cam-wheel C, will impart a greater or less length of stroke to the dropping-plate B. In this instance I employ for the purpose a movable or shifting fulcrum-pin, *b*, for the casting *d*, of which the upwardly-projecting arm *a* forms a part, so that by raising the pin *b* the stroke will be lengthened and by lowering it the stroke will be shortened, thus enabling the stroke of the arm *g* to be adjusted to suit the planter to which the check-rower is attached. The casting *d* has in this instance two sets of passages, *c c*, formed through it for the pin *b*, and the hangers *e e*, by which the intermediate mechanism, A, is attached to the bar D, have two sets of passages, *e' e'*, for the pin *b*, thus enabling the pin *b* to have two adjustments; but a greater number of passages for the bolt might be formed to increase the number or range of stroke-adjustments, if desired. The lower portion of the casting *d* is, by preference, made segmental in form and with the slot *d'*, and to it is attached, by the bolts *f f'*, the arm *g*, which operates the dropping-plate B of the planter, to which it is connected by the fingers *h h*, as shown clearly in Fig. 1. The bolt *f'* passes through the slot *d'*, so that the point of the arm *g* may be raised or lowered, as circumstances require, that the stroke may be adjusted exactly; and several holes, *g'*, are made through the arm *g* for the bolts *f f'*, so that the arm may also be adjusted longitudinally to suit the different locations of the drop-bar on the various planters to which the check-rower may be applied.

The yokes E E, with anti-friction wheels for the field-wire F, the shaft G with cam-wheel C, forked sprocket-wheels H, and square nut I are of substantially the same construction as disclosed by my above-mentioned patents, and the seed-boxes J and the spring-actuated plate K, that acts in conjunction with the square portion I, are of substantially the same construction as shown and described by my patent of April 14, 1885, above referred to.

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

1. In a check-rower, the plate *d*, having the vertical lugs apertured at *c*, to receive a pivot-bolt, *b*, the plate having a curved slot, *d'*, extending therethrough at right angles to the direction of the apertures *c*, the apertured arm *g g'*, pivoted to the plate *d* at *f*, and the bolt *f'*, passed through the bar and the curved slot *d'*, substantially as set forth.

2. The dropping-plate B, connected with the casting *d* by the arm *g*, in combination with the casting *d*, vertically-adjustable pin *b*, and cam C, for reciprocating the casting *d* upon the pin *b*, substantially as and for the purposes set forth.

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Witnesses:
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