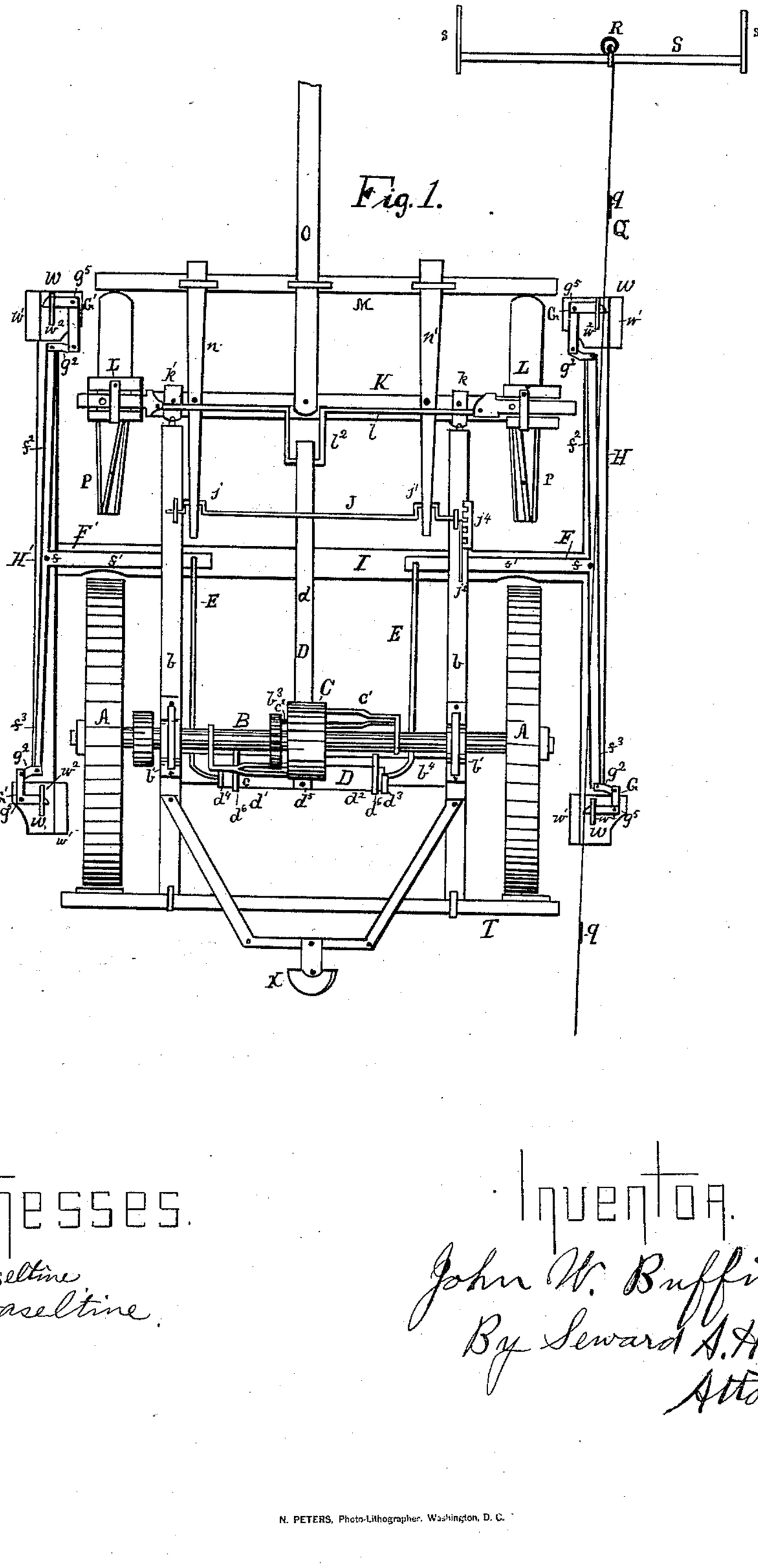
(No Model.) 2 Sheets—Sheet 1.

J. W. BUFFINGTON.

CHECK ROWER AND CORN PLANTER.

No. 334,846. Patented Jan. 26, 1886.

Fig. 1.



Witnesses.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

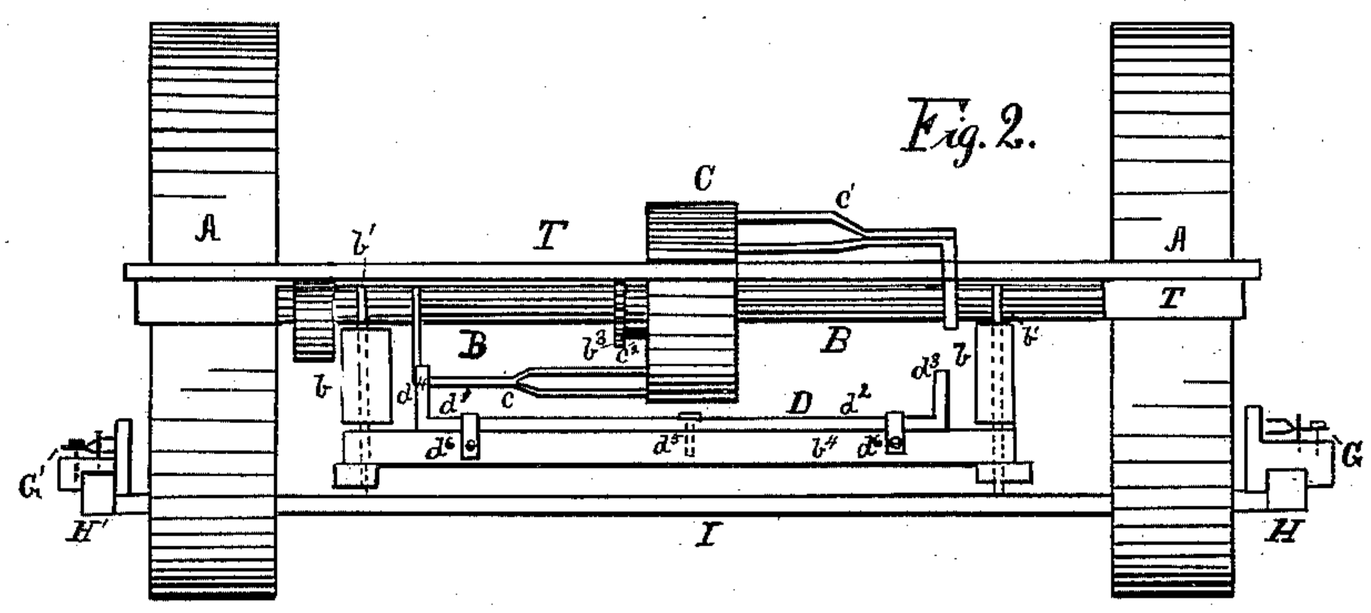


Fig. 3.

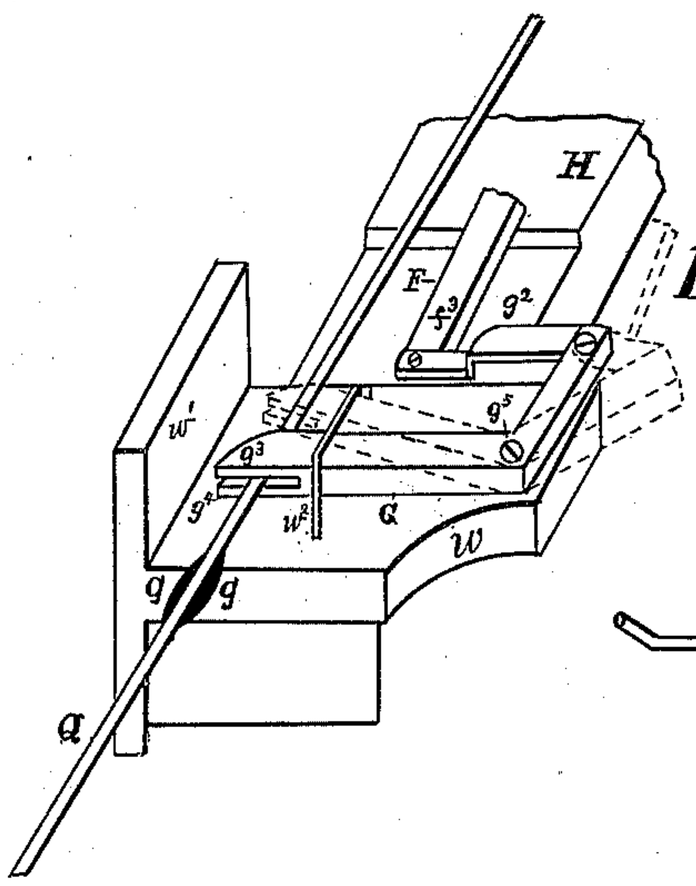
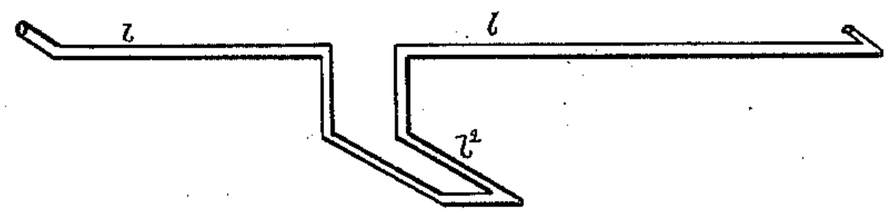


Fig 4



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UNITED STATES PATENT OFFICE.

JOHN W. BUFFINGTON, OF GOODNIGHT, MISSOURI.

CHECK-ROWER AND CORN-PLANTER.

SPECIFICATION forming part of Letters Patent No. 334,846, dated January 26, 1886.

Application filed December 15, 1884. Serial No. 150,336. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BUFFINGTON, a citizen of the United States, residing at Goodnight, in the county of Polk and State of Missouri, have invented certain new and useful Improvements in Combined Check-Rowers and Corn-Planters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in combined check-rowers and automatic corn-planters, the object of which is to provide a cheap, simple, and convenient device for accurately dropping corn, which may be operated by means of enlargements on a wire, and by means of the wheels or one of them in point-rows. These objects I attain by means of the device illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top or plan view of the entire device. Fig. 2 is a rear elevation. Figs. 3 and 4 are enlarged detail views.

Similar letters of reference indicate corresponding parts in all the figures.

A are wheels, of any desired size, for regulating the distance between the hills in point-rows, as hereinafter explained. One of the said wheels is attached to the axle B, which is made to revolve in bearings b' b', which are preferably secured to the upper sides of the frame-pieces b b, to lower the frame and bring the cross-piece I and its attached parallel pieces H H′ near the ground, thus permitting the wire to stay near the surface of the ground and avoid the usual sagging and consequent variation in the dropping.

Q is a wire having enlargements or knots q. This wire is stretched across the field to be planted, and is secured at each end to pulleys R, which work upon rods S, which are secured at opposite sides of the field by any suitable means. I use posts s, which support the rods and permit the pulleys to move back and forth, and at the same time keep the wire stretched. Thus the driver may go two or more rounds, according to the length of the rods S, without changing his stakes s, which is a great saving of time and trouble.

F F′ are T-shaped levers, pivoted at the cross-point f, having the arms f^2 f^3 extending forward and back along the pieces H H′. The ends of said arms are attached by pieces g^2 g^2 to one end of small elbow-shaped levers G′ G, the other end of said elbow-levers being forked at g^3 g^4, to receive the wire Q, and have their points carried backward (shown in Fig. 3) to enable the enlargements q the easier to slip off. Said elbow-levers are pivoted, g^5, to the ends of the pieces H H′, but are preferably pivoted, as shown, to pieces or blocks W, secured on the ends of the pieces, and are provided with a suitable device for preventing the wire from escaping from the fork. This I accomplish by forming a vertical projecting edge, w', and a clevis, w^2, which straddles the end of the lever and serves as a guide for the wire, and assists to throw it from the fork when the enlargement draws the lever back far enough to operate the feed-bar, as shown by dotted lines, Fig. 3. The machine moving forward, the enlargement next operates upon the second elbow-lever, G, and throws the feed-bar back in position. Thus a single enlargement or knot drops four hills—two in each row—and I save half of the usual number of links, and avoid the necessity of any links. The motion is conveyed to the feed-bar from the elbow-levers thus: The T-lever F, if going in one direction, or F′, if the wire is changed to the opposite side (as it must be) in going in the other, is moved by the connection, g^2 is moved on the pivot f, and the body f' is thrown back when the enlargement passes G′, and forward when it passes G, and by the rod E, which can be detached, when desired, to throw the wire connection out of gear, the motion is conveyed to one end of a T-shaped lever, D, which is pivoted at d^5 to the middle of a cross-piece, b^4, which is secured beneath the axle B to the frame-piece b b'. The body d of this lever D, which is attached to or preferably, as shown, placed in a loop, l^2, of the feed-rod, so as to admit of vertical play, imparts the lateral motion given it by working on the pivot d^5 to the feed-bar, so as to drop corn at each time one of the enlargements q passes one of the elbow-levers G′ G. In short or pointed rows the wire may be dispensed with. In this case the rods E are detached at either end, so as to disconnect the T-levers.

The wire is removed from the machine, and the feed-bar is operated by means of connections with one of the wheels A. Thus the

axle B has an attached ratchet or cog wheel, b^3, and on the said axle is placed loosely a wheel, C, which has arms c c' placed opposite to each other on different sides of the wheel and axle, as shown. Said wheel C also has a suitable catch, c^2, to engage at any desired point with the ratchet or cog wheel b^3. When thrown in gear, wheel C revolves with the axle B.

d^3 d^4 are vertical projections near the ends of the arms d' d^2 of the T-lever, so that as the wheel C revolves its arm c' moves the arm d^2 by its projection d^3, which moves the feed-bar in one direction, and as the wheel A revolves one-half way round it drives the bar back by means of the other arm, c. Thus at each revolution of the wheels A four hills—two in each row—are dropped, and thus the wheels A become the measure of the hills in the row. This is sufficiently accurate for short or point rows; but the wire is necessary for accuracy on long rows. The bar l is attached to ordinary slides, or may be attached for turning the ordinary wheel for dropping the corn from the usual corn-boxes at each side into the plows or shoes P, which conduct it into the ground in front of the wheels A, which assist in covering it. The tongue O is attached in any suitable way to the cross-pieces K M, which support the shoes and corn-boxes. The front part is arranged to be raised from the ground when desired. This is accomplished by attaching the pieces b b to the cross-piece K. So as to give freedom of motion I use two clevises, k k'.

n n' are supports firmly secured to the pieces M K, and projecting backward.

J is a rod having a lever, j^2, and ratchet j^4 at one end, and provided with depressions or cranks j j', over which the supports n n' pass, so that by pulling back on the lever-handle j^2 it raises the front part and the shoes from the ground.

T is a scraper-bar attached to the back ends of the pieces b b, and having sharp edges turned downward to cut and keep the mud from gathering on the wheels. The seat X is preferably secured on the back part and to the pieces b b, to assist in balancing the front part when raised.

d^6 are guides.

Thus I have a machine simple in construction for automatically dropping corn by means of both wire and the wheels.

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

1. A wire, Q, having enlargements q, elbow-levers G' G, having forks g^3 g^4, T-shaped levers F F D, attachments g^2 g^2 E E, and a feed-bar, l, having a loop, l^2, all constructed and arranged substantially as shown and described.

2. The combination of a frame composed of pieces b b, cross-pieces b^4 I, and parallel pieces H H', with forked and pivoted elbow-shaped levers G' G, pivoted T-shaped levers F F D, and a feed-bar, l, having a loop, l^2, all substantially as shown and described.

3. A block, W, having a projecting edge, w', and a clevis, w^2, combined with a pivoted elbow-shaped lever, G, which has forks g^3 g^4, and a connection, g^2, with one end of a T-shaped lever, F, substantially as shown and described.

4. A frame composed of pieces b b, cross-pieces b^4 I, and parallel pieces H H', placed near the surface of the ground for supporting the wire Q, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. BUFFINGTON.

Witnesses:
J. T. WHITE,
S. A. HASELTINE.