(No Model.) 2 Sheets—Sheet 1.

C. H. GAGE.

CHECK ROWER.

No. 342,347. Patented May 25, 1886.

Fig. 1

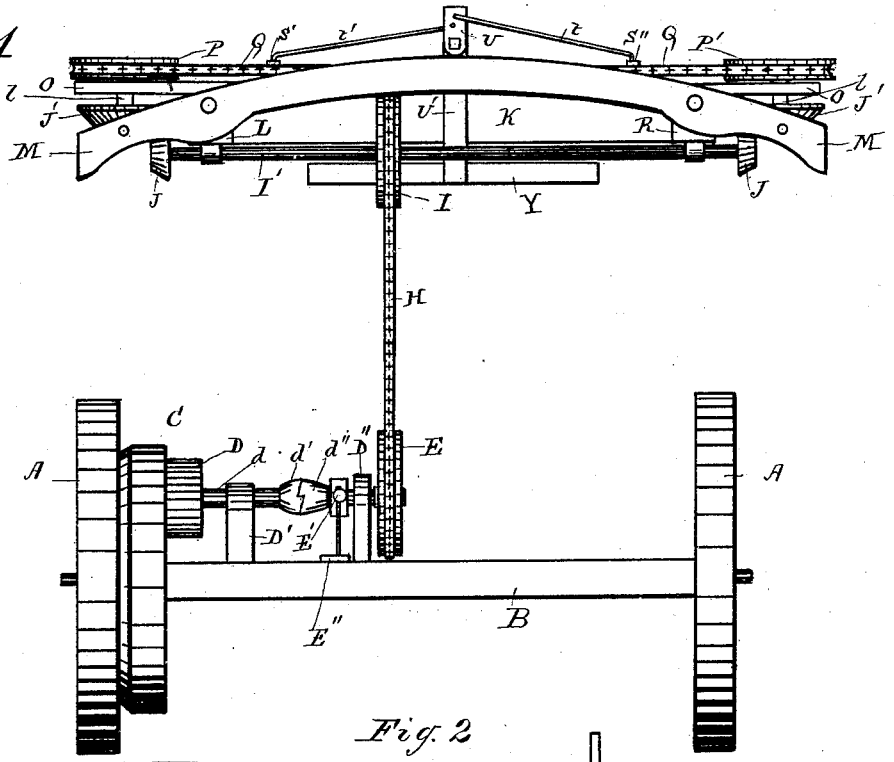
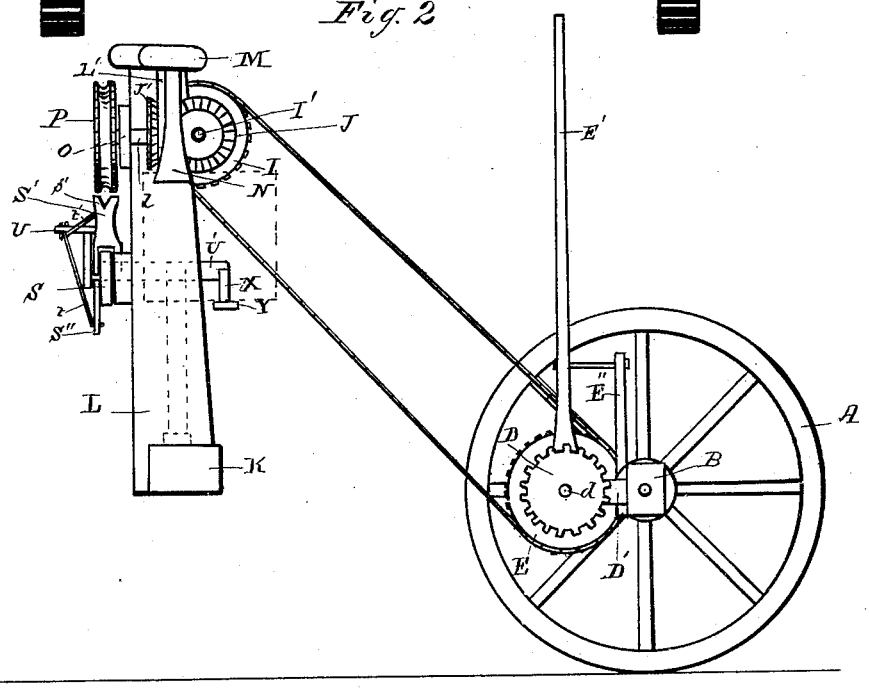


Fig. 2



WITNESSES

Morton Poulnin

M. D. Murphy

INVENTOR

Charles H. Gage

Jr. H. Hunter

Attorney

(No Model.) 2 Sheets—Sheet 2.

C. H. GAGE.

CHECK ROWER.

No. 342,347. Patented May 25, 1886.

Fig. 3

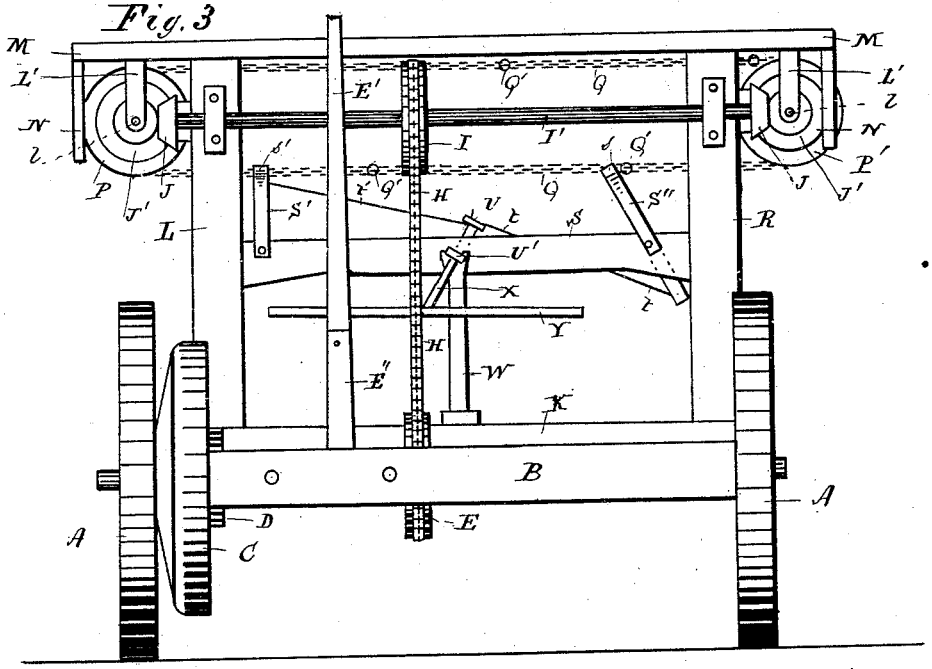
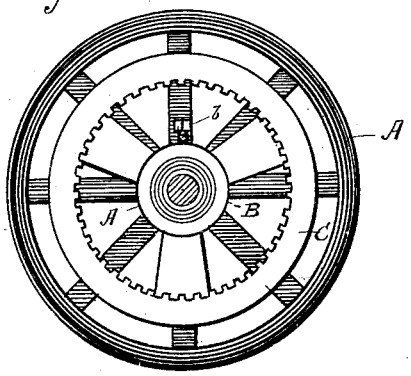


Fig. 4



WITNESSES

Morton Poulnin

M. D. Murphy

INVENTOR

Charles H. Gage

Jno. H. Hewitt

Attorney

UNITED STATES PATENT OFFICE.

CHARLES H. GAGE, OF STANBERRY, MISSOURI.

CHECK-ROWER.

SPECIFICATION forming part of Letters Patent No. 342,347, dated May 25, 1886.

Application filed December 17, 1885. Serial No. 185,927. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. GAGE, a citizen of the United States, residing at Stanberry, in the county of Gentry and State of Missouri, have invented certain new and useful Improvements in Check-Rowers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in check-rowers, and has for its object to furnish a check-rower which may be used in connection with a number of corn-planters already on the market. This object is attained by the mechanism illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan. Fig. 2 is a side elevation, in which one of the wheels of the planter is removed as well as the internal gear-wheel. Fig. 3 is an end elevation from the front of the machine. Fig. 4 is a detached detail view of one of the wheels of the planter and shows the internal gear-wheel, C, attached thereto, the axle being in section.

The letter A indicates the wheels of a corn-planter, mounted upon an axle-tree, B, which also supports a cog-wheel, C, which is attached to the hub of one of the wheels A by means of a set-screw or bolt, and turns freely with the wheel A. The gearing (or cogs) is on the inside of the wheel C, and meshes into a smaller wheel or pinion, D, mounted upon a shaft, *d*, revolving in bearings D′ D″, secured to the axle-tree B, and provided at one end with a chain or sprocket-wheel, E. The shaft *d* has a clutch, *d′ d″*, which is operated so as to throw it in and out of gear by means of a lever, E′, having a fork at the lower end, which straddles the clutch *d″*, and is pivoted to a piece, E″, attached to the axle B.

When the machine is drawn over the ground, the wheel C revolves with the wheel A and gives motion to the pinion D, together with its shaft *d*, when the clutches *d′ d″* are caused to engage with each other by means of the lever E′, and this motion is communicated to the sprocket-wheel E, which drives the sprocket-chain H, together with the wheel I and its shaft I′, which revolves in bearings attached to the standards L R, these latter being secured to the bench-piece of a corn-planter, K.

At each end of the shaft I′ is a bevel-wheel, J, which mesh into bevel-wheels J′, mounted on shafts *l l′*, having bearings in hangers L′, which latter are secured to a cross-bar, M, attached to the standards L R, and extending at each end over the standards L R a sufficient distance to receive the hangers L′ as well as the hangers N. One end of each of the shafts *l l′* is supported by the hangers L′, and after passing through the wheels J′ has a bearing upon the bracket O, and is then provided with chain-wheels P P′, which carry an endless chain, Q, having adjustable buttons Q′, for a purpose hereinafter described.

Extending across the machine is a bar, S, having its ends suitably secured to the standards L R. Near the two ends of this bar S are pivoted two pieces of wood or metal, S′ S″, each having a fork at the upper end, *s s′*. The lower end of the piece S″ extends a short distance below the bottom of the bar S, and is provided with an opening for the passage of one end of a rod, *t*, which is provided with a hook for that purpose. In like manner the upper part of the piece S′ has an opening for the passage of one end of a rod, *t′*, also having a hook for that purpose. The remaining or inner ends of these rods *t t′* have also hooks which pass through openings in a crank-arm, U, attached to the end of a rock-shaft, U′, having bearings in the cross-bar S and an upright piece, W, bolted to the top of the bench K of the corn-planter. The remaining end of the rock-shaft U′ has a crank-arm, X, which is flexibly connected to the slide-bar Y, which passes under the seed-boxes of the planter, and is held in a horizontal position by them. A seed-box is indicated in Fig. 2 in dotted lines, attached to one of the hangers N.

It will be observed that when the machine is in motion the lower portion of the endless chain Q passes just above the forks *s s′* of the pieces S′ S″, and that when one of the adjustable buttons Q′ engages with one of the forks—say *s*—it will cause the piece S′ to move in one direction, and by means of its rod *t* will cause the rock-shaft U′ to rock in one direction, and when the button Q′ has reached the fork *s′* and presses against it the piece S″ will move in the opposite direction and cause the rock-shaft U′ to rock back again, and in this manner will give the slide-bar Y a reciprocating motion backward and forward, and thus regulate

the time and distance of dropping the seed from the seed-boxes. The buttons Q′ are therefore made adjustable, in order that their relative positions may be changed at the will of the operator, according to the requirements, whether to drop the seed a long or short distance apart.

The operation of the device is as follows: For checking corn, when the operator starts out at the end of the rows, he must have the end hills at both ends uncovered, and then start and drop the next hills even with them, and he will have the corn perfectly straight. If the planter is not ready to drop when he turns around at the end, he should take hold of the chain and drop the hills himself. By care the farmer will have the corn checked perfectly both ways.

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

In a check-rower, the combination, with the endless chain Q, driven by suitable mechanism and having buttons Q′ at suitable intervals, of the forked levers S′ and S″, pivoted to the bar S, the connecting-rods *t* and *t′*, the crank-arm U, and rock-shaft U′, the crank-arm X, and the pivoted slide-bar Y, the whole arranged to operate substantially as specified.

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

CHARLES H. GAGE.

Witnesses:
ADOLPHUS HOEL,
SAMUEL EDWARDS.