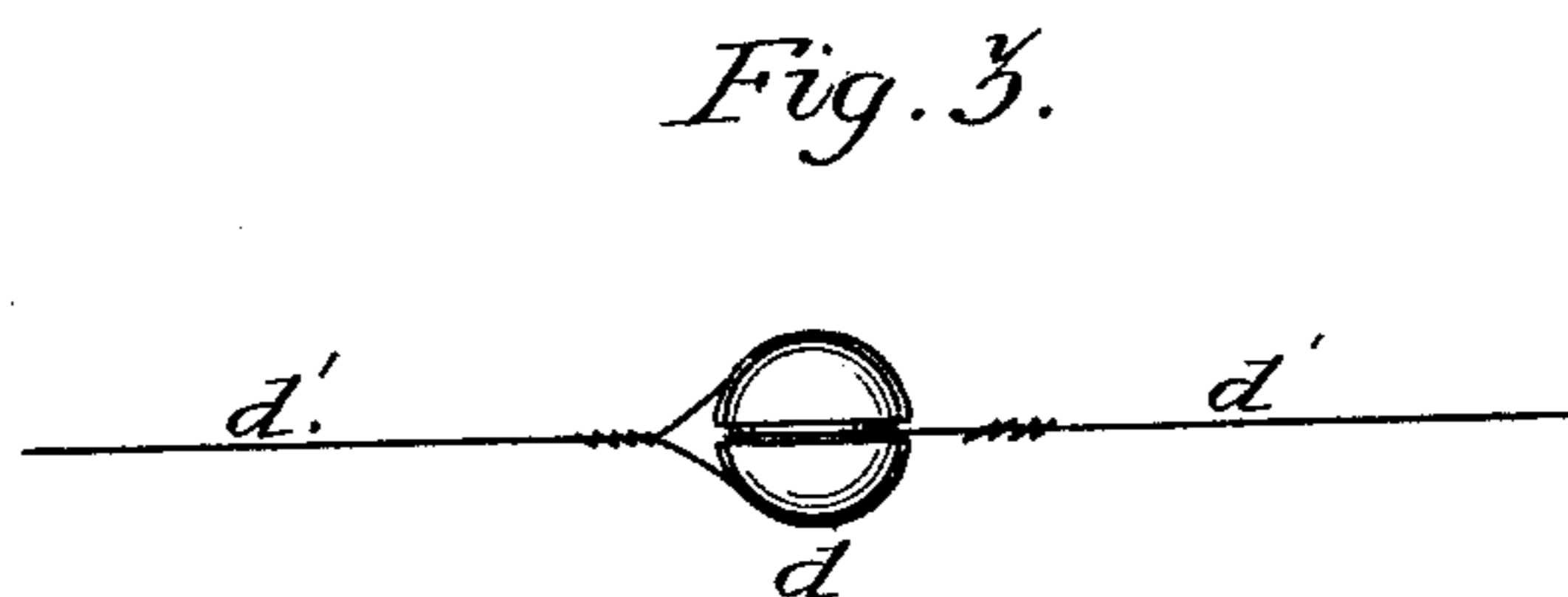
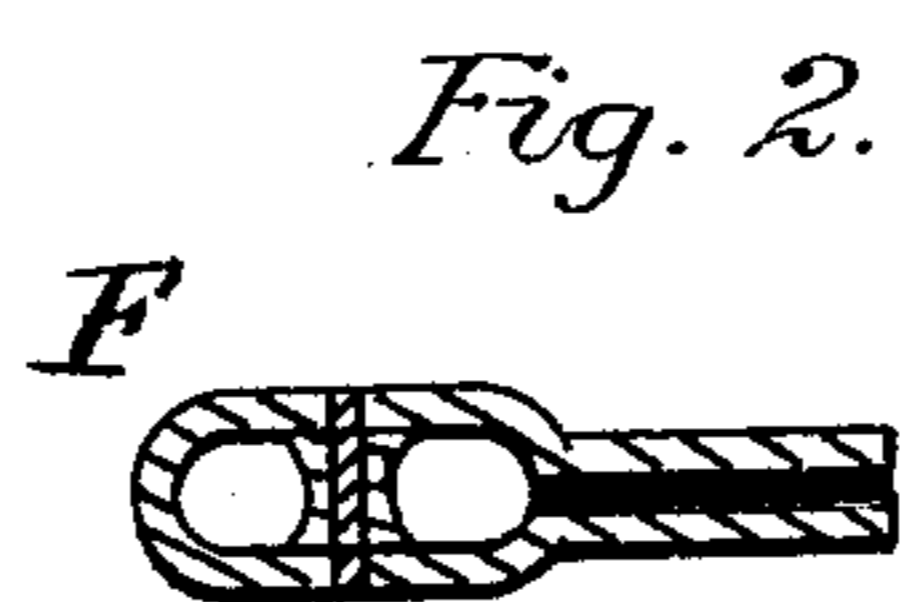
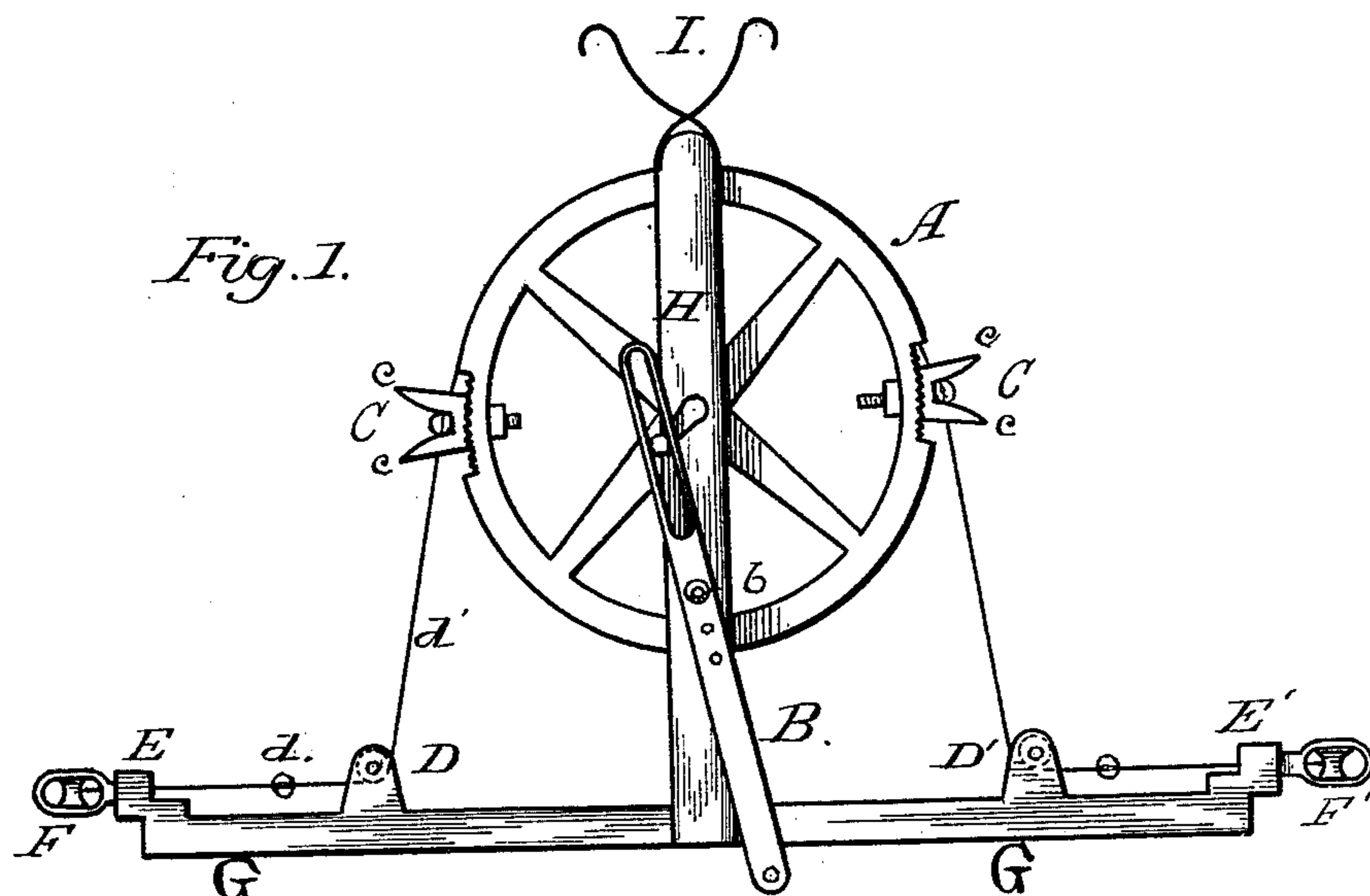


(No Model.)

A. J. GRUSH & J. LOCKHART.
Check Rower for Corn Planters.

No. 233,927.

Patented Nov. 2, 1880.



Witnesses:
Elmer Myers,
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UNITED STATES PATENT OFFICE.

ANDREW J. GRUSH AND JESSE LOCKHART, OF MACON COUNTY, ILLINOIS;
SAID GRUSH ASSIGNOR TO SAID LOCKHART.

CHECK-ROWER FOR CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 233,927, dated November 2, 1880.

Application filed July 29, 1880. (No model.)

To all whom it may concern:

Be it known that we, ANDREW J. GRUSH and JESSE LOCKHART, residents of the county of Macon and State of Illinois, have invented certain new and useful Improvements in Check-Rowers for Corn-Planters, of which the following is a specification.

Our invention relates to check-rowers in which the seed-slide is operated by means of a wheel revolved by stops on a check-row wire.

The invention is defined and set forth in the following specification and claim.

In the drawings accompanying and forming a part of this specification, Figure 1 is a side elevation of our device. Fig. 2 is a longitudinal vertical section of the pulley-block used for receiving and discharging the wire, and Fig. 3 shows the stop on the wire.

A is a grooved wheel, having a circumference equal to twice the distance between the corn-rows, and provided with recesses at opposite points in its outer surface to receive the crotches C C.

B is a lever, pivoting at *b*, connected with the seed-slide at its lower end, and provided with slot, as shown, to receive the crank of the wheel.

C C are double crotches, corrugated to coincide with the surface of the wheel, to which they are bolted.

D D' are guide-pulleys to bring the wire close to the wheel, so that one crotch will engage a stop before its opposite releases one.

F F' represent pulley-blocks, which revolve vertically in bearings E E' on the ends of the bar G.

d is the stop on the wire, consisting in a metallic ball having its surface divided by two grooves into four equal parts, and the wire extending around these grooves, as shown in Fig. 3, forms a universal joint, while the wire lying in the grooves is protected from wear.

c c represent each a single crotch of double crotch C, which is constructed to exactly receive the stop on the wire. By this arrangement the inconvenience of a double or irregular drop is overcome, as the stop acts as a lock.

Pulley-block F at its bearing in E is tubular. I represents a holder for the reins.

In operation the wire, being once passed through the tubular shafts of the pulley-blocks F F', needs no further adjusting, as every time a turn is made the pulleys revolve vertically to adapt themselves to the new position.

We claim—

The combination of the wheel A, having the crotches C C on either side let into serrated notches in the wheel, and provided with a short crank, as shown, with the lever B, pivoted in the center, and engaging by means of a slot with the wheel-crank at one end and with the seed-dropper at the other, and with the wire *d*', having the stops *d*, arranged at such intervals as that one shall engage with a crotch on one side of the wheel before the preceding one is released from the crotch on the opposite side, as shown and described.

ANDREW J. GRUSH.
JESSE LOCKHART.

Attest:

H. W. WAGGONER,
S. F. GREER.