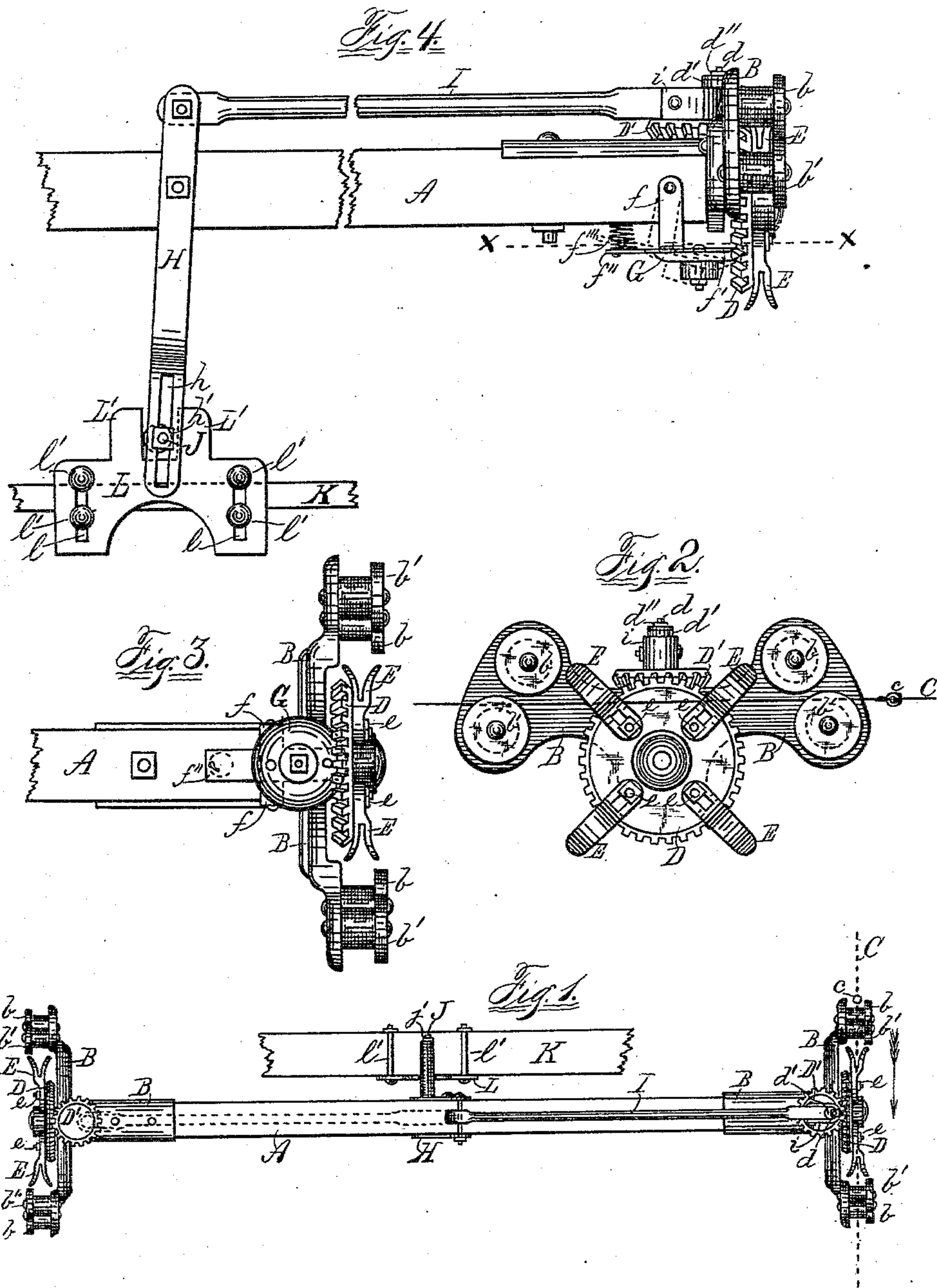


J. C. LEIDY.

CORN PLANTER CHECK ROWER.

No. 303,169.

Patented Aug. 5, 1884.



Witnesses:  
G. R. Richards.  
Thos. M. Skarinn.

Inventor:  
James C. Leidy,  
By W. R. Richards, atty.

(No Model.)

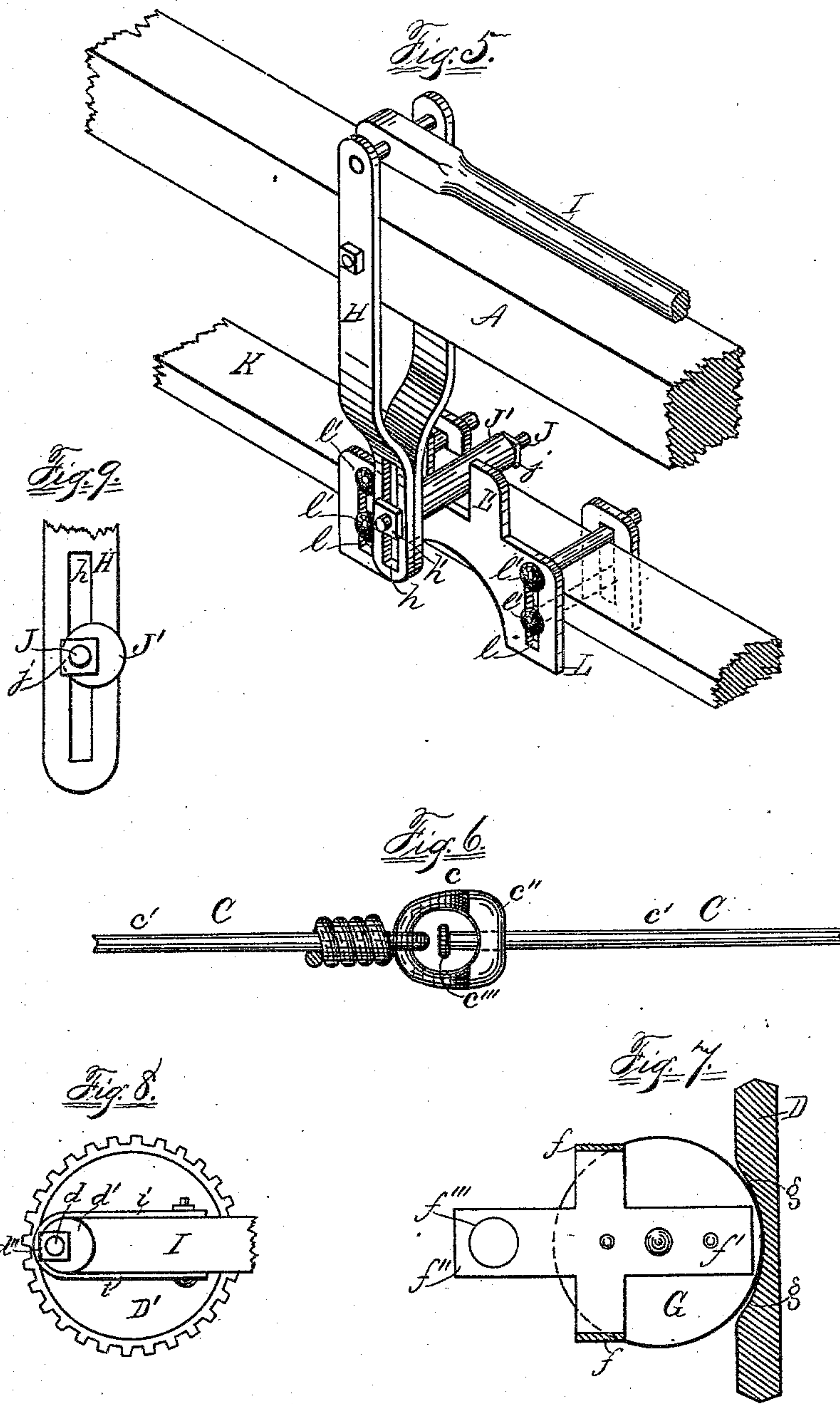
2 Sheets—Sheet 2.

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By W. B. Richards, Atty.



# UNITED STATES PATENT OFFICE.

JAMES C. LEIDY, OF GALESBURG, ILLINOIS.

## CORN-PLANTER CHECK-ROWER.

SPECIFICATION forming part of Letters Patent No. 303,169, dated August 5, 1884.

Application filed January 12, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES C. LEIDY, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Corn-Planter Check-Rowers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 or figures of reference marked thereon, which form a part of this specification.

This invention relates to corn-planter check-rowers of that class in which the check-row devices are actuated by knots or tappets on a stretched wire; and the invention consists in constructions and combinations hereinafter described, and set forth in the claims hereto annexed.

In the accompanying drawings, which illustrate my invention, Figure 1 is a top plan. Fig. 2 is an end elevation. Fig. 3 is a plan of one end of the device seen from below. Fig. 4 is a front side elevation. Fig. 5 is a perspective of the central part of the planter slide-bar and connections of the check-row devices thereto. Fig. 6 is a side elevation of two sections of the check-row chain or tappet-wire. Fig. 7 is a sectional plan of the wheel which carries the forked levers in line *xx* in Fig. 4. Fig. 8 is an enlarged top plan of wheel *D'*. Fig. 9 is an enlarged end elevation of sleeve *J'*.

Referring to the drawings by letters, the same letter indicating the same part in the different figures, *A* represents the ordinary bar, to each end of which similar devices are attached, as shown at Fig. 1, but only one of which need be described herein.

*B* is a T-shaped head, fixed to the end of bar *A*, and provided with ordinary guide-pulleys, *b b'*, for the ordinary tappet-wire, *C*.

*D* is a miter-wheel journaled to the outer end of the head *B*, and in gear with a smaller miter-wheel, *D'*, which is journaled to the upper side of head *B*. Ordinary forked arms, *E*, are radially adjustable on the wheel *D*, and are held after adjustment by bolts *e*, which pass through slots in the arms *E* and into the wheel *D*. By adjusting the arms *E*, the proper

length of time of contact of the tappets *c* on the wire *C* with the forked arms *E* may be regulated, and by said arms being bolted to wheel *D*, if either gets broken, it may be replaced by a new arm.

*F* is a frame, with arms *f*, which are hinged to the bar *A*, and an arm, *f'*, to which a friction-wheel, *G*, is journaled, and a rear projecting arm, *f''*, with a spring, *f'''*, between it and the bar *A*, which spring tends to hold the rim of the wheel *G* in frictional contact with the side of the wheel *D*. The side of the wheel *D* next the wheel *G* has depressions *g*, one between each pair of arms *E*, or in such positions that after a tappet on the check-row wire has acted on one of the forked arms *E* the wheel *G* will be pressed by the spring *f'''* into one of the depressions *g* with sufficient force to hold the wheel *G* and other parts of the device, and thereby prevent accidental movement of the planter seed-slides from jarring or tilting of the planter, and also hold the wheel *D* in such position that one of its forked arms *E* will always be in proper position for the action of a tappet *c*. When a tappet *c* acts on the wheel *D*, the spring *f'''* will yield, and allow the wheel *G* to yield backward to permit movement of the wheel *D*.

*H* is a lever, pivoted, as shown, to the bar *A*.

*I* is a connecting-rod. The miter-wheel *D'* has a crank-pin, *d*, on which a sleeve, *d'*, is eccentrically journaled, and held, after radial adjustment, by a nut, *d''*, on the outer end of the crank-pin. The connecting-rod *I* is hinged to the upper end of the lever *H*, and may be turned over to engage a strap, *i*, on its free end with the eccentric on the wheel *D'* at either side of the machine, as shown by full and dotted lines at Fig. 1.

*J* is an arm, which may be adjusted higher and lower in a slot, *h*, in the lower end of the lever *H*, and held after adjustment by a nut, *h'*.

*J'* is a sleeve eccentrically journaled on the arm *J*, so that it may be adjusted radially on the arm *J*, and held after adjustment by a nut, *j*, on said arm *J*.

*K* is the central part of the ordinary connecting-bar between the seed-slides of the planter.

*L* is a plate, with a vertical slot, *l*, in each end, through which bolts *l'* pass to secure it to



the bar K, as shown. The plate L may be adjusted vertically, and held after adjustment by the bolts *U*. Arms *L'* project upwardly from the plate L, between which arms *L'* the eccentric *J'* operates. By adjusting the sleeve *J'* radially on the arm J the device may be made to give a very exact throw to the seed-slides in either direction, and by adjusting the arm J vertically on the lever H the extent of throw of the slides may be regulated as desired. The extent of throw of the seed-slides may be more finely adjusted by adjusting the eccentric *d'* on the crank-pin *d*. The arm J is long, so that it may seat properly in the arms L in planters of different construction.

The operations of the device further than hereinbefore described will be evident to any one skilled in the art. In passing in one direction across the field the connecting-rod I is connected with the miter-wheel D' at one side of the machine, and in passing across in the opposite direction it is connected with the miter-wheel at the other side of the machine, whereby the devices at one end of the bar A remain stationary while those at its other end are in operation. Each tappet, in operating on a forked arm, E, brings another forked arm into proper position for the action of the next tappet. My tappet-wire, with tappets or knots *c*, is formed as shown at Fig. 6. The sections *c'* of the wire are united by the tappet *c*, which is a link with an enlarged end, *c''*, through which the end of one section of wire passes, and has a head, *c'''*, formed thereon, which holds the wire therein and forms a swivel. The end of the other section of wire is passed through the other end of the link or tappet *c*, and bent back upon itself, and secured by coiling the end upon the main portion, as shown at same figure. I thus unite the sections of wire and the tappet, so as to form a universal-joint connection between the sections of wire, and also a swivel, to permit flexure in any direction between the sections of wire, and to relieve the wire from any torsional strain.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the tappet-wire and

the miter-wheel D, having radial forked arms E attached to its disk, the miter-wheel D', connecting-rod I, and lever H, connected with the seed-slide-operating bar, substantially as and for the purpose specified.

2. In a check-rower, in combination with the miter-wheel D, having forked arms E attached to its disk, lever H, connected with the seed-slide bar, connecting-rod I, having strap *i* on its end, the miter-wheel D', having a crank-arm, with an eccentric sleeve journaled thereon, substantially as and for the purpose specified.

3. In combination with wheel D, having forked arms, wheel D', having crank-arm, and lever H, for operating the seed-slides, the connecting-rod I, hinged to lever H, and adapted to engage with wheel D' on either side of the planter, substantially as and for the purpose specified.

4. In a check-rower, in combination with the seed-slide bar, connecting-rod I, adapted to be operated by suitable mechanism connected with a tappet-wire, and lever H, the arm J, having sleeve *J'* eccentrically journaled thereon, substantially as and for the purpose specified.

5. In a check-rower, in combination with a tappet-wire and a wheel, D, having forked arms E, the yielding friction-wheel G, adapted to act in depressions in one side of wheel D, substantially as and for the purpose specified.

6. In combination with forked lever-carrying wheel D, with depressions *g* in one side, the yielding friction-wheel G, adapted to enter said depressions, substantially as and for the purpose specified.

7. A check-row tappet-wire formed of sections *c'*, one of which is provided with an eye formed by coiling its end upon itself, and the other provided with a head and an interposed link joined to sections, substantially in the manner shown.

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

JAMES C. LEIDY.

Witnesses:

SAML. N. GROSE,  
S. P. SWARTOUT.