(No Model.)

J. F. WINCHELL.

CHECK ROW ATTACHMENT FOR SEED PLANTERS.

No. 575,289. Patented Jan. 12, 1897.

Fig. 1.

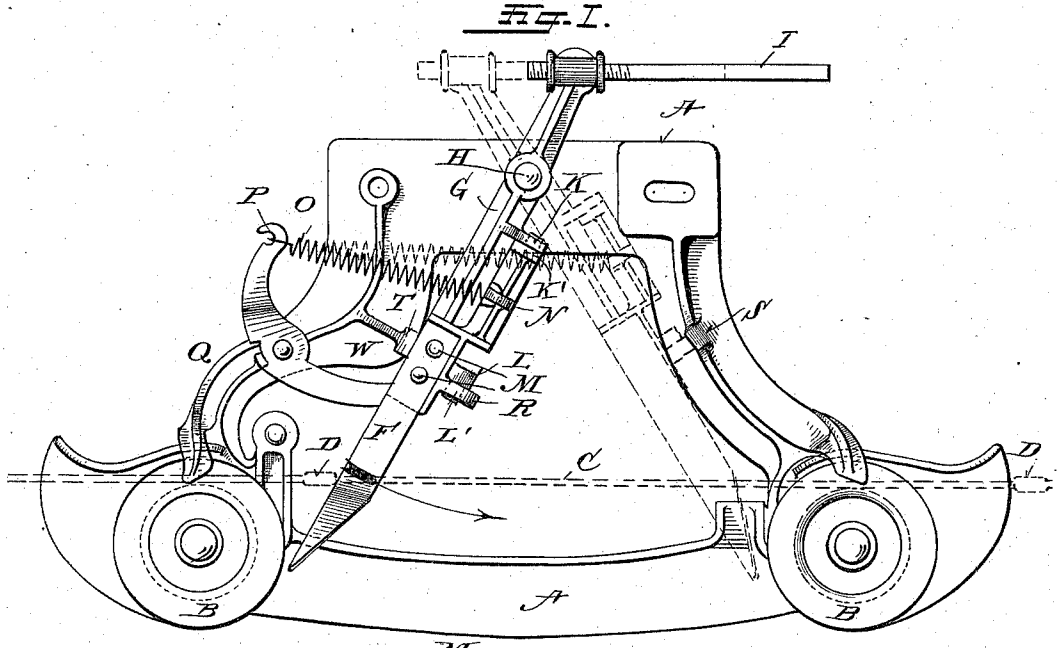

Fig. 2.

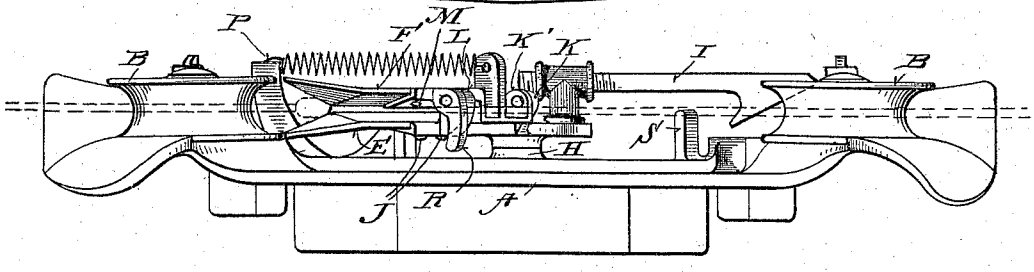

Fig. 5.

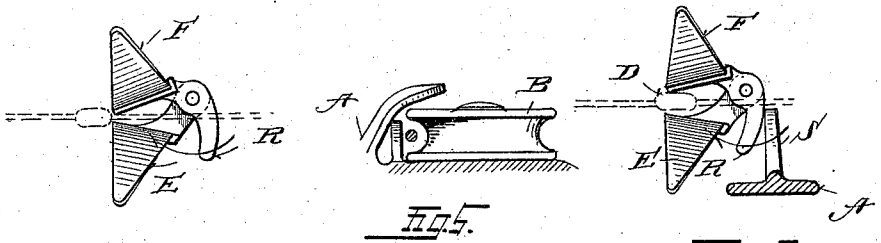

Fig. 3.

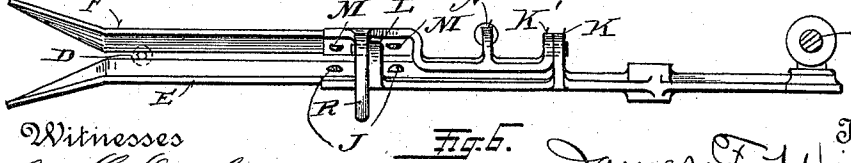

Fig. 4.

Fig. 6.

Witnesses
Jas. E. Dawley
H. M. McNair.

Inventor
James F. Winchell,
By his Attorney,
H. A. Toulmin

UNITED STATES PATENT OFFICE.

JAMES F. WINCHELL, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE FOOS MANUFACTURING COMPANY, OF SAME PLACE.

CHECK-ROW ATTACHMENT FOR SEED-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 575,289, dated January 12, 1897.

Application filed May 14, 1896. Serial No. 591,462. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. WINCHELL, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Check-Row Attachments for Seed-Planters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in check-row attachments for seed-planters.

The objects of my invention have reference to providing the lever operated by the check-row wire with a hinged and a stationary jaw, so that the knots on the wire may readily pass through said jaws by opening one of them; to means for opening and closing said jaws at a predetermined time, and to points of detail hereinafter appearing, and particularly pointed out in the claims.

In the accompanying drawings, in which like reference-letters indicate corresponding parts, Figure 1 is a plan view of my check-row attachment; Fig. 2, a side elevation thereof; Fig. 3, a detail view in end elevation; Fig. 4, a detail view of the same, showing the jaw opened to allow knots on the check-row wire to pass between them and means for opening them; Fig. 5, a detail view of one of the sheaves for guiding the wire and the adjacent parts, and Fig. 6 an enlarged view of the operating-lever.

Heretofore in constructing these check-row attachments the lever for operating the seed-dropper mechanism has been bifurcated or forked, through which the operating chain or wire passed. These forks were also so shaped that when the lever was operated, by the knots on the wire coming in contact with the forks, to its full limit the knots would slip off the ends of the forks. This has been very unsatisfactory, as it wore out the check-row wire and shortly rendered it useless. This difficulty I have entirely overcome by my improvement, as will more fully appear.

The letter A represents the frame of my check-row attachment, adapted to be bolted or otherwise secured to the frame of a corn-planter in the usual or any convenient manner, and the letter B sheaves, over which passes the check-row wire C, having a series of knots or projections D. This wire or chain C passes between what I term "jaws" E and F, forming a part of a lever G, pivoted to the frame A, as shown at H. This lever G is connected to an operating-rod I, which connects with the usual dropping mechanism, in the usual manner.

The lower jaw E is preferably formed of wrought-iron, but may be made of other suitable metal, bolted or otherwise secured to the lever G, as shown at J.

Cast or otherwise secured to the lever G are lugs K and L, respectively forming parts of hinges, to which is connected the upper jaw F, through lugs or projections K' L' extending therefrom, by suitable bolts or rivets, so that the jaws may be readily opened and closed by mechanism presently to appear. The outer end of this upper jaw is also constructed of wrought-iron, bolted or riveted, as shown at M in Fig. 1, to the remaining or inner portion of said jaw. A lug or projection N is cast or otherwise secured to the inner portion of this upper jaw and has connected to it a spring O, hooked over a hook P at its other end, said hook being carried by a rigid support Q. This spring O normally holds the upper jaw down on the lower jaw and returns it to such position after being opened by mechanism which I will now describe.

One member of one of the hinges is extended to form a lug, as shown at R, and is adapted to come in contact with a lug or projection S, extending from the frame A.

When the machine is in proper position for operation, the check-row chain is thrown over the sheaves B and between the flared-out portion of the jaws E and F, as shown in Fig. 3, and into position, as shown in dotted lines in Figs. 1 and 2. This slightly opens the jaws, as seen in Fig. 3, and the upper jaw rests on the wire. As the machine is moved along one of the knots on the wire C is brought into contact with the jaws of the pivoted lever when the lever is moved in the direction of the arrow shown in Fig. 1 to the dotted position, when the lug or depending portion R comes in contact with the lug or projection S. This raises the upper jaw, as shown in Fig. 4, when the

knot is allowed to pass on through, and the spring O immediately returns the jaw to its former or closed position and also pulls the lever back to the full-line position, as shown in Fig. 1, where it strikes against a stop T to limit its movement in such direction.

It will also be seen that the jaws are quite a distance apart along their hinged edges. This is for the purpose of allowing the chain or wire and its knots to readily pass through from the rear side, as is the case when the planter is backed, as frequently occurs, without operating the pivoted lever. This is of great practical importance, as in starting it is often necessary to back the machine somewhat in order to start correctly or should the machine for some reason fail to sow a hill of grain. In using prior check-row attachments it was necessary to dismount from the machine to remove the check-row wire before the machine could be backed. This was annoying, as well as time consuming. Then where the knots slipped over the ends of the forks a constant wear took place, both on the forks and on the knots, but with my improvement all this has been overcome, and therefore the life of the check-row attachment, as also the check-row wire itself, has been greatly prolonged.

I have shown and described my operating-lever with one jaw adapted to be opened, but I do not confine myself to this construction so long as the jaw is capable of opening and closing.

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

1. In a check-row attachment for a seed-planter, the combination with a suitable frame, of a pivoted lever mounted thereon and adapted to be connected with the seed-dropping mechanism, a stationary and a pivoted jaw mounted on said lever, a check-row wire or chain having knots thereon adapted to pass between said jaws and operate said lever, and mechanism for operating one of said jaws to release said knots at a predetermined point in the operation of the lever.

2. In a check-row attachment for a seed-planter, the combination with a suitable lever pivoted thereto and adapted to operate the seed-dropping mechanism, a hinged jaw and a stationary jaw connected to said lever, a check-row wire adapted to pass between said jaws and having knots for moving said lever in one direction, and mechanism to open said jaws to release said knots, and means to close said jaws and return said lever to normal position.

3. In a check-row attachment for a corn-planter, the combination with a lever pivoted thereto and adapted to be connected to the seed-dropping mechanism, of a pair of jaws carried by said lever one of which is partially rotatable on a pivot substantially lengthwise of itself and adapted to be opened and closed, a check-row wire working through said jaws whereby said lever is operated, and means to open the jaws to release the wire.

4. In a check-row attachment for seed-planters, the combination with a suitable frame, of an operating-lever pivoted thereto and adapted to be operated by a check-row wire passing between jaws, one of which is rigidly secured to said lever and the other of which is hinged to said lever, and means for raising and lowering said hinged jaw.

5. In a check-row attachment for seed-planters, the combination with a suitable frame having an operating-lever pivoted thereto, of a pair of jaws forming a part of said lever, said jaws being nearly closed together along one edge but standing apart along their other edge, one of them being partially rotatable, whereby when the machine is backed the check-row wire and its knots may pass between and pull through said jaws without operating the lever.

6. In a seed-planter, a check-row-wire lever having a fixed jaw and a horizontally-hinged jaw, the forward edges of said jaws being normally close together and their rear edges farther apart than the forward edges, whereby the wire may enter between the jaws but the knots are obstructed by the forward edges, and whereby when the hinged jaw is horizontally rotated, partially, the forward edges separate and the rear edges allow the knots to escape.

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

JAMES F. WINCHELL.

Witnesses:
H. S. BRADLEY,
GEO. S. DIAL.