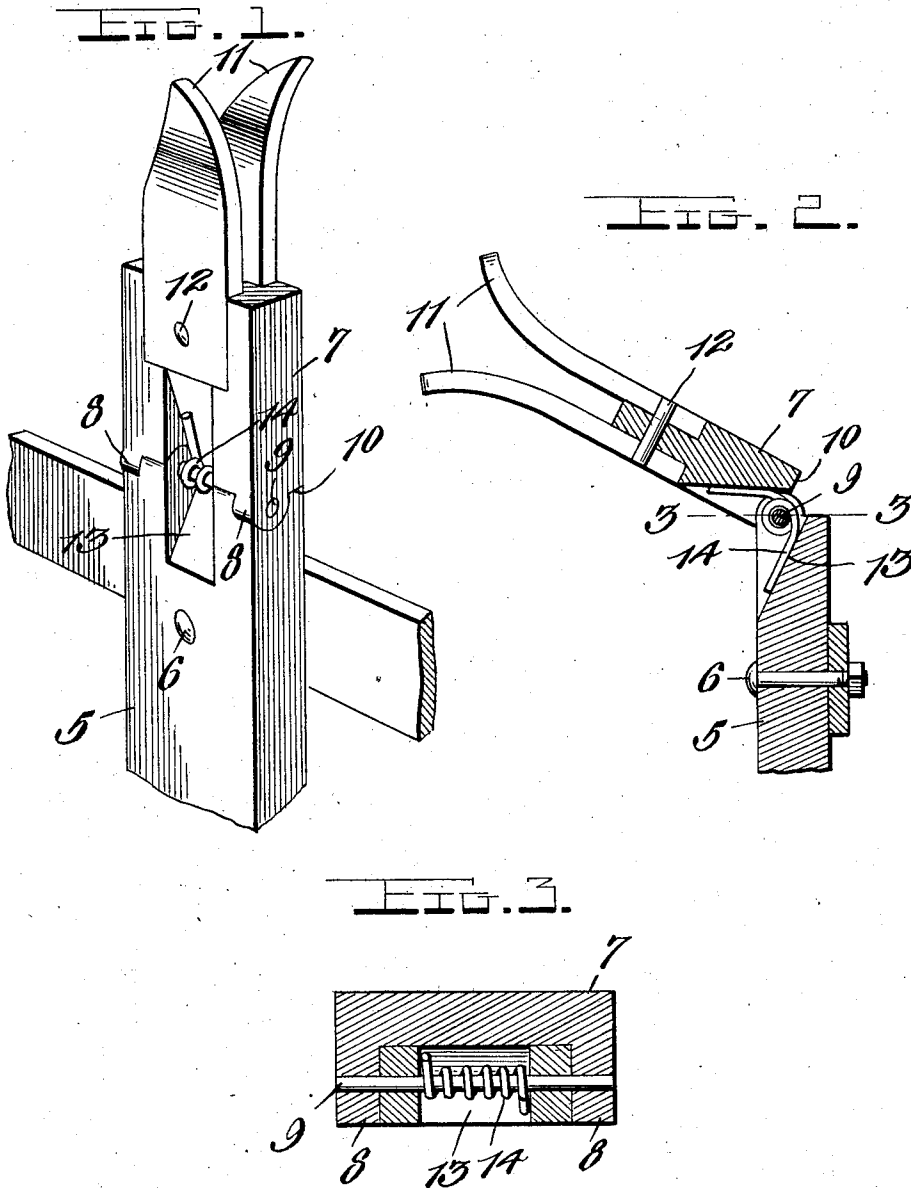


A. T. CARLSON.
HINGED FORK FOR CHECK ROW PLANTERS.
APPLICATION FILED JAN. 16, 1911.

997,369.

Patented July 11, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

ARTHUR T. CARLSON, OF DUDLEY, IOWA.

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Specification of Letters Patent.

Patented July 11, 1911.

Application filed January 16, 1911. Serial No. 602,920.

To all whom it may concern:

Be it known that I, ARTHUR T. CARLSON, a citizen of the United States, residing at Dudley, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Hinged Forks for Check-Row Planters, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in supporting forks for check row planters such as are commonly used upon corn planting machines for supporting the wire or chain whereby the machine is guided in its movement across the field.

The primary object of the present invention resides in the provision of a support of the above character formed in two hingedly connected sections, one of which is rigidly secured to the frame work of the machine, and a spring arranged in the hinge joint of said sections for yieldingly holding the movable section in an upright position to permit of its ready movement when the wire or chain becomes lodged therein.

A further object of my invention is to provide a supporting fork for planters consisting of two sections and a spring hinge connecting said sections, said sections being each provided with a recess to receive the spring of the hinge whereby said spring is disposed entirely within the face of the fork and prevented from catching bushes, fences or other articles.

Still another object of the invention resides in the provision of a device of the above specified character which is extremely strong and durable, and of great convenience in practical operation.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a wire or chain supporting fork embodying my invention; Fig. 2 is a vertical section showing the movable fork section disposed in an angular position to dislodge the wire therefrom; and Fig. 3 is a section taken on the line 3—3 of Fig. 2.

Referring in detail to the drawing 5 designates the stationary fork section which is adapted to be rigidly secured to a portion of

the frame of the machine by means of the bolt 6. The movable section 7 of the wire supporting fork is mounted upon the upper end of the stationary section 5. These co-engaged ends of the fork sections are formed with the spaced hinge knuckles 8 which are disposed in pairs at opposite sides of the fork when the sections are connected as clearly shown in Fig. 1. A pintle 9 is disposed through suitable openings in the hinge knuckles which are provided to receive the same. It will be observed that the knuckles 8 are of less diameter than the thickness of the fork sections so as to provide the shoulders 10 which are adapted to abut to prevent the movement of the fork section 7 inwardly in the use of the device. This section is, however, free to swing outwardly under stress which is applied thereto by pulling upon the wire or chain which extends between the fork plates 11 countersunk in the opposite faces of the section 7 at its upper end. The upper ends of these fork plates are flared which will be observed from reference to the drawing so as to permit of quickly positioning the wire or chain between the same. The lower ends of the plates are rigidly secured to the movable section 7 by means of the bolt 12 which extends transversely through said plates and fork section.

The outer face of each of the sections 5 and 7 is provided with a longitudinal recess 13, which gradually increases in depth from its inner to its outer end, the base of said recess being inclined as clearly shown in Fig. 2. Upon the hinge pintle 9 and between the inner hinge knuckles 8 which are formed on the section 7, a coiled spring 14 is arranged. The ends of said spring extend in opposite directions from the hinge pintle into the recesses 13 and have their extremities securely fixed to the bases of said recesses. This spring normally acts to hold the movable section 7 in a vertical position in alinement with the fixed fork section 5. When the end of the field is reached or it is desired at any time to lower the wire or chain, in the event that the chain becomes tightly lodged between the plates 11 of the fork, the operator simply pulls outwardly upon the chain or wire and swings the upper section outwardly and downwardly. This movement of the pivotally mounted fork section coils the spring

14 and places the same under sufficient tension to immediately return the fork section 7 to its normal upright position after the wire or chain has become dislodged therefrom.

From the above it will be seen that I have devised a very simple and effective device whereby the annoyance of the wire or chain of a corn planter catching in the fork so that it becomes extremely difficult to remove the same, is entirely avoided. By arranging the coiled spring 14 as disclosed in the drawing entirely within the plane of the outer face of the fork sections, the liability of the spring being caught in bushes or the palings of a fence in the operation of the machine is also eliminated thus rendering the device extremely durable in use. It will be understood that the specific means for attaching the fork plates upon the movable section 7 may be greatly varied as well as the form of the plates themselves, the principal feature of this portion of the device residing in the fact that the plates are countersunk in the faces of the movable fork section so that no protruding portion remains to catch upon the obstructions adjacent to the path of movement of the machine.

From the foregoing it is thought that the construction and operation of the device will be obvious. The same may be constructed at an extremely low cost and arranged upon corn planters of various forms. It is also extremely efficient and reliable in operation and greatly economizes in time and labor necessary in the operation of the machine.

While I have shown and described the preferred construction and arrangement of the various parts, it will be understood that the device is susceptible of considerable modification without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. A supporting fork of the character described comprising a stationary section, a

movable section hingedly mounted upon the stationary section, and a spring yieldingly supporting the movable section in an upright position in alinement with the stationary section, substantially as and for the purpose specified.

2. A supporting fork of the character described comprising a stationary section, a movable section hingedly mounted upon the upper end of the stationary section, one face of each section being provided with a longitudinal recess, said recesses being disposed in alinement, a spring arranged upon the hinge pintle in said recess and rigidly secured at its ends to the stationary section and to the movable section, said spring being placed under tension by the movement of said movable section and adapted to return the same to its normal upright position, and fork plates countersunk in the opposite faces of the movable section at its free end, substantially as and for the purpose specified.

3. A supporting fork of the character described comprising a vertical section rigidly secured to a stationary element having hinge knuckles formed upon one end, a movable section provided with hinge knuckles on one end to engage the hinge knuckles on the stationary section, a hinge pintle extending through said knuckles, abutting shoulders formed on said sections to prevent movement of the movable fork section in one direction, the outer faces of the fork sections at their hinged ends being provided with alined longitudinal recesses communicating at their ends, a coiled spring arranged upon the hinge pintle and rigidly secured at each end in the bases of said recesses, and fork plates countersunk in the opposite faces of the movable section at its free end and rigidly secured thereto, substantially as and for the purpose specified.

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

ARTHUR T. CARLSON.

Witnesses:

J. L. SIPES,
JOHN R. SIPES.