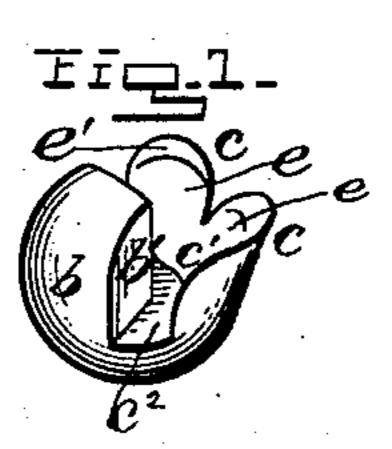
(Model.)

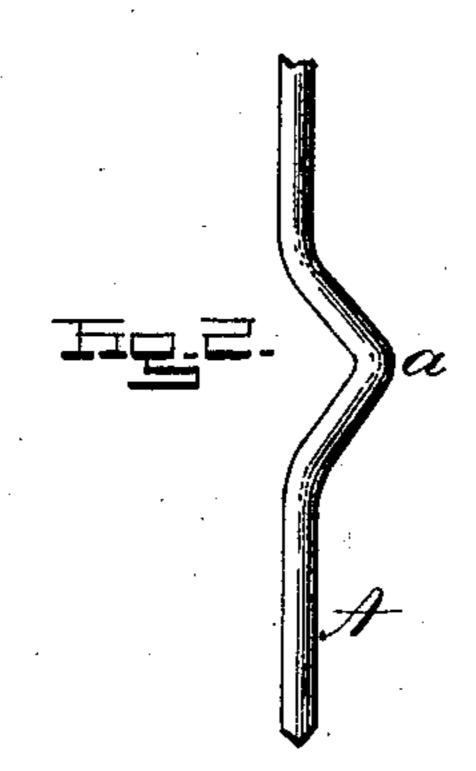
## J. F. MORRISEY.

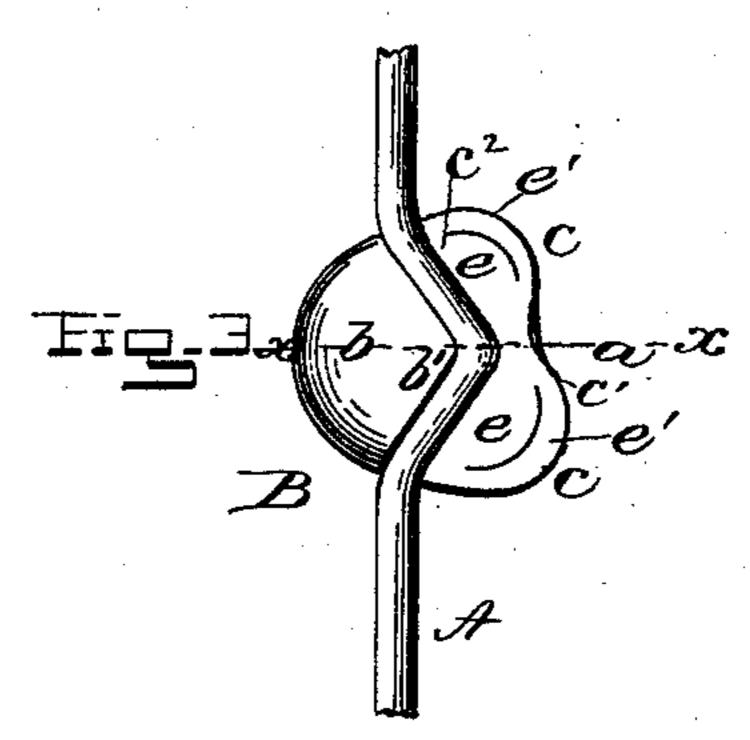
## KNOTTED WIRE FOR CHECK ROWERS.

No. 301,825.

Patented July 8, 1884.









WITNESSES

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## UNITED STATES PATENT OFFICE.

JAMES F. MORRISEY, OF JOLIET, ILL., ASSIGNOR OF TWO-THIRDS TO AMOS N. KLINEFELTER AND ANDREW DILLMAN, BOTH OF SAME PLACE.

## KNOTTED WIRE FOR CHECK-ROWERS.

DEECIFICATION forming part of Letters Patent No. 301,825, dated July 8, 1884.

Application filed March 19, 1884. (Model.)

To all whom it may concern.

Be it known that I, James F. Morrisey, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Knots for Check-Row Wires, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

or knob before it is applied to the wire. Fig. 2 is a section of the kinked wire. Fig. 3 shows the wire laid in the knot or knob before the lips on the latter are closed on the wire. Fig. 4 shows the knot or knob rigidly secured to the wire. Fig. 5 is a section through Fig. 3, taken in the plane indicated by dotted lines x x.

This invention relates to an improved knotted wire, which is designed for actuating check-rowing devices applied to corn-planters; and it consists in a novel mode of constructing such wires, whereby the knots or knobs are quickly applied to the wire and positively prevented from slipping on the wire, as will be fully understood from the following description, when taken in connection with the annexed drawings.

A designates a portion of the wire, which in practice is stretched over a field as a guide for the planter, and the means for actuating the dropping devices. This wire is provided at regular and proper distances apart with angular bends or crimps a, which may be readily produced by suitable crimping machinery.

B designates one of my improved knots or knobs, which I prefer to make of cast malleable iron. Each knob B is cast with an angular shoulder, b', formed on the body b, and also with two lips, cc, separated by an angular notch, c', as clearly shown in Figs. 1, 3, and 4. Between the angular shoulder b' and the lips cc is left a deep groove, c², which is also angular, as shown in Fig. 3, and adapted to receive the bent or crimped portion a of the wire A. After the wire A is properly

adjusted in the groove  $c^2$ , as shown in Fig. 3, the lips c c are hammered down and closed over the wire, as shown in Fig. 4, thereby 50 rigidly securing the knot or knob in its proper place on the wire. The knob B thus applied to the wire is in the form of a ball or sphere, and admirably adapted for the purpose designed for it.

It will be observed that the faces forming the angular shoulders are oblique to the straight line of the wires A, and that the two lips c c, when closed, will impinge against said shoulders in the same oblique lines; hence 60 it will be observed that there is great strain on the wire A and concussions on the knots B.

on the wire A and concussions on the knots B. There will be no liability of the angles a straightening out and opening said lips c c.

It will be observed by reference to Figs. 1 65 and 5 that the inner sides of the body B are perpendicular to the floor of the angular groove  $c^2$ , also that the inner sides of the two lips c c are also perpendicular to said floor, excepting at and near their ends, which are 70 beveled, as indicated by letter e. It will also be observed that at the junction of the two lips c c the connecting-web is very thin. By thus constructing the knot-blanks they can be readily and cheaply cast without coring, 75 and their beveled lips can be readily and singly pressed over the wire, and closely adapted to the angular sides of the body b, so that a ball having a smooth surface is produced.

I am aware that cast-metal balls or knots have been applied to crimped check - row wires by casting the said balls or knots with lips at right angles to the line of the wire, forming closed knuckles on the wire, and then 85 compressing the lips of the knobs about said knuckles. Such devices I disclaim.

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

also angular, as shown in Fig. 3, and adapted to receive the bent or crimped portion a of the wire A. After the wire A is properly a is properly a and a and a is properly a and a and a is properly a. As a new and improved article of manufacture, the within-described blank, consisting of a body, b, having angular internal sides the wire a.

groove, and two lips also presenting internal perpendicular sides and beveled rounded ends, and connected by a thin web, as specified.

2. The combination, with the angle in the said body, b, an angular groove, c², and two lips having beveled and rounded ends substantially closed against the two angular sides of the said body, substantially as specified.

In testimony whereof I affix my signature in 10 presence of two witnesses.

JAMES F. MORRISEY.

Witnesses:
L. E. DILLMAN,
HENRY HURLBUT.