No. 619,585. Patented Feb. 14, 1899.

K. K. LEROL, JR.

ANCHOR AND TENSION DEVICE FOR CHECK ROW CORN PLANTERS.

(Application filed Nov. 28, 1898.)

(No Model.)

Fig. 1.

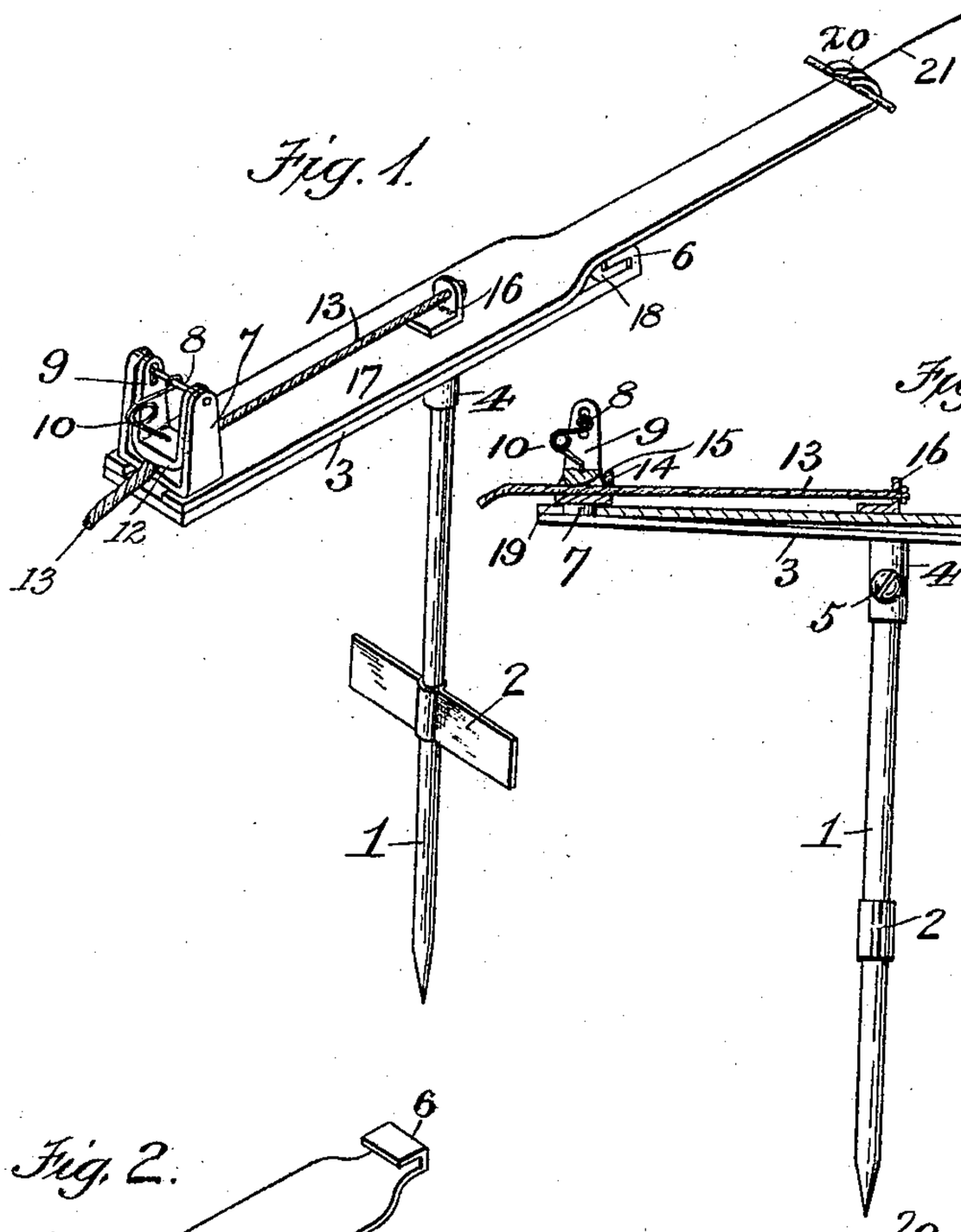

Fig. 3.

Fig. 2.

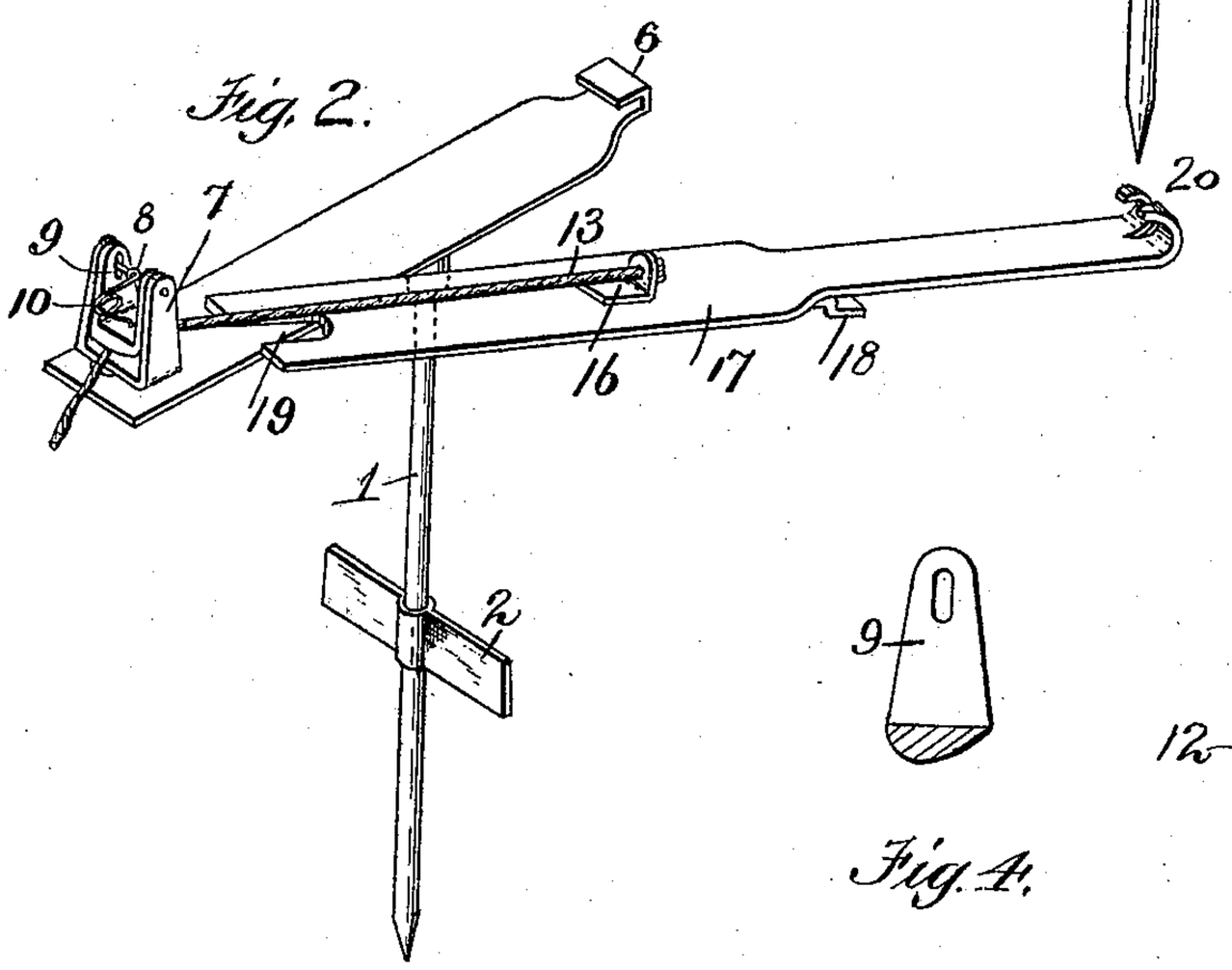

Fig. 4.

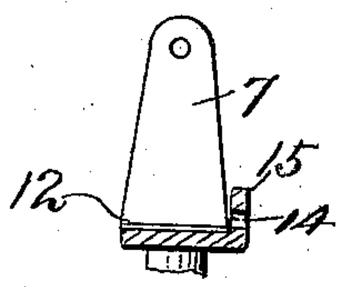

Fig. 5.

WITNESSES:
Franck L. Durand.
Jos. L. Coombs

INVENTOR:
Knud K. Lerol, Jr.
BY
Louis Bagger & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

KNUD K. LEROL, JR., OF NEWBURG, MINNESOTA.

ANCHOR AND TENSION DEVICE FOR CHECK-ROW CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 619,585, dated February 14, 1899.

Application filed November 28, 1898. Serial No. 697,660. (No model.)

To all whom it may concern:

Be it known that I, KNUD K. LEROL, Jr., a citizen of the United States, residing at Newburg, in the county of Fillmore and State of Minnesota, have invented new and useful Improvements in Anchor and Tension Devices for Check-Row Corn-Planters, of which the following is a specification.

My invention relates to anchor and tension devices for check-row corn-planters. As is well-known, when the check-row wires are used with corn-planters to operate the seed-slides after the planter has traveled across the field the anchor at the terminal side is shifted so that the wire will be in a line at an angle to the line of travel of the planter, so that the latter in its return movement can plant in another track. As the planter thus travels means must be provided for allowing the wire to give or yield, so as to prevent injury thereto or to the planter.

The object of my invention is to provide an improved construction of anchor and tension device whereby as the planter approaches the stake the release-bar will be disconnected from the anchor-plate and fed toward the planter under proper tension.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of an anchor and tension device constructed in accordance with my invention. Fig. 2 is a similar view showing the wire released from the anchor. Fig. 3 is a central longitudinal section of the anchor and tension device in the position shown in Fig. 1. Figs. 4 and 5 are detail views of the tension cam and clamp, respectively.

In the said drawings the reference-numeral 1 designates a stake pointed at one end and provided intermediate the end with wings 2, upon which the operator presses with his foot in driving the stake into the ground.

The numeral 3 designates a horizontal anchor-plate provided on the lower side, at or near the center, with a socket 4, which engages with the upper end of the stake. This socket is provided with a set-screw 5, by which it is securely held on the stake. The front end of said plate is bent backwardly, forming a lug 6, with which engages a catch on a release-bar, hereinafter described. At the rear end of said plate is a U-shaped clamp 7, provided at the upper end with a transverse rod 8, to which is journaled a swinging cam 9. The holes in the cam through which the said rod passes are made slightly oblong, so as to permit the cam to have a slight up-and-down movement, as well as a swinging one.

The numeral 10 designates a spring secured to said rod and bearing upon the cam. The horizontal portion of the clamp is formed with a groove 12 to receive a tension-rope 13. This rope passes through a hole 14 in a plate 15 at the front of the clamp. Said rope is also connected with a plate 16 on a release-bar 17, resting on the plate 3, and provided with a catch 18 on its under side, which is adapted to engage with the lug 6, and thus limit the forward movement of the said bar. The rear end of the bar 17 is formed with a slot 19, which engages with the clamp which forms the fulcrum of said bar when the latter is swung sidewise, and also forms a stop to limit the rearward movement of the bar. The front end of the said bar is bifurcated and turned backwardly, forming two hooks 20, between which the rear end of the check-row wire 21 engages. This wire may be formed with knots at regular intervals to operate the seed-slides of the planter, as usual.

The operation is as follows: At the beginning of the operation of planting the stakes are driven in the ground at opposite sides of the field in line with the pulley on the planter, over which the wire passes. As the planter travels across the field the release-bar, engaging with the lug of the anchor-plate by means of its catch, will hold the wire taut. When the planter reaches the other side of the field, the stake at that side is shifted to the right or left, as the case may be, so that the planter can run in another track upon its return movement. The wire will now be in an inclined line with respect to the line of travel of the planter. As the planter continues its return movement the strain upon the wire will swing the release-bar sidewise, so that its catch will be disengaged from the lug of the anchor-bar. As the planter approaches the stake the angle of the wire will gradually increase or be enlarged, causing it to pull upon the release-bar at an angle to the anchor-

plate, and thus disconnect the said bar from the plate. The tension-rope will now give or yield, allowing the release-bar to approach the planter. When the planter reaches the stake, the latter is shifted, as in the case of the other stake, and the release-bar drawn back by means of the tension-rope, so that the catch of said bar can be again engaged with the lug of the anchor-plate, the cam swinging backward to allow the rope to be readily drawn back and also slightly rising by reason of the oblong holes, through which the rod which forms the journal thereof passes. When the release-bar is engaged from the anchor-plate, the cam and clamp will exert the proper tension on the rope by means of the spring bearing upon the cam.

Having thus fully described my invention, what I claim is—

1. In an anchor and tension device for check-row corn-planters, the combination with the stake, the anchor-plate secured thereto and the release-bar detachably connected with the anchor-plate, of the tension-rope connected with said release-bar and means for allowing it to be fed toward the planter by the strain of the check-row wire, substantially as described.

2. In an anchor and tension device for check-row corn-planters, the combination with the stake, the anchor-plate secured thereto and provided with a lug at the front end, of the release-bar having a catch engaging with said lug, and the tension-rope connected with said bar, substantially as described.

3. In an anchor and tension device for check-row corn-planters, the combination with the stake, the anchor-plate secured thereto, the U-shaped clamp at the rear of said plate and the pivoted spring-actuated cam, of the release-bar detachably connected with said plate and the tension-rope connected with said bar and passing between said cam and clamp, substantially as described.

4. In an anchor and tension device for check-row corn-planters, the combination with the stake, the anchor-plate secured thereto having a lug at its front end, the U-shaped clamp at its rear end formed with a groove in its horizontal portion and provided at the front with an apertured plate, and the pivoted spring-actuated cam, of the release-bar provided with a catch engaging with said lug and formed with a slot at the rear, the plate on the upper side of said bar and the tension-rope passing between said cam and clamp and connected with the plate on the release-bar, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

KNUD K. LEROL, JR.

Witnesses:
P. P. JOHNSON,
T. W. CHRISTIANSON.