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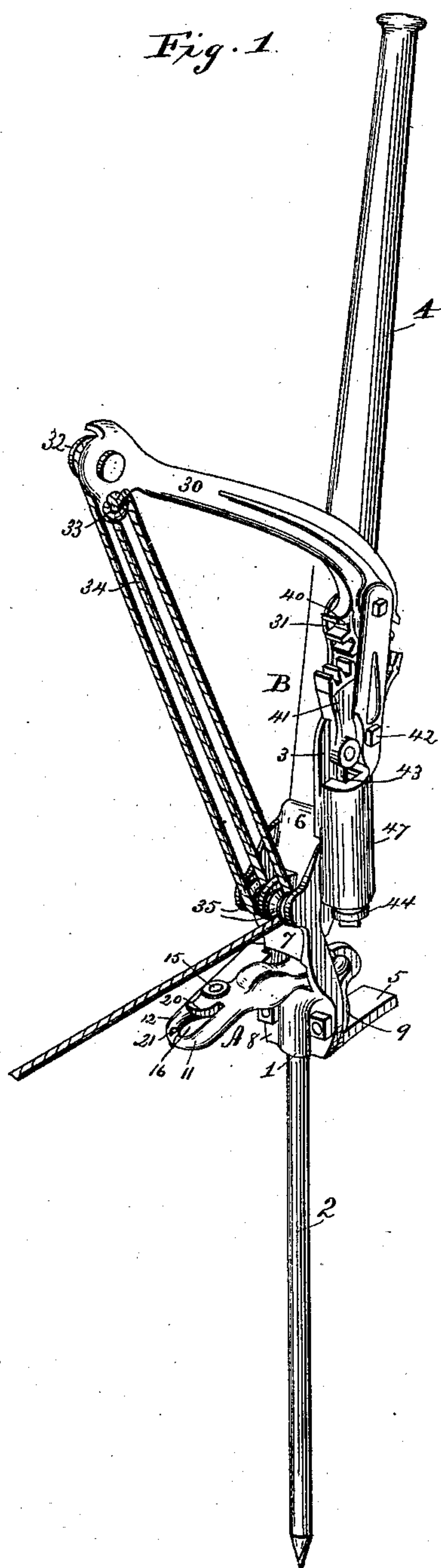
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J. C. BARLOW.

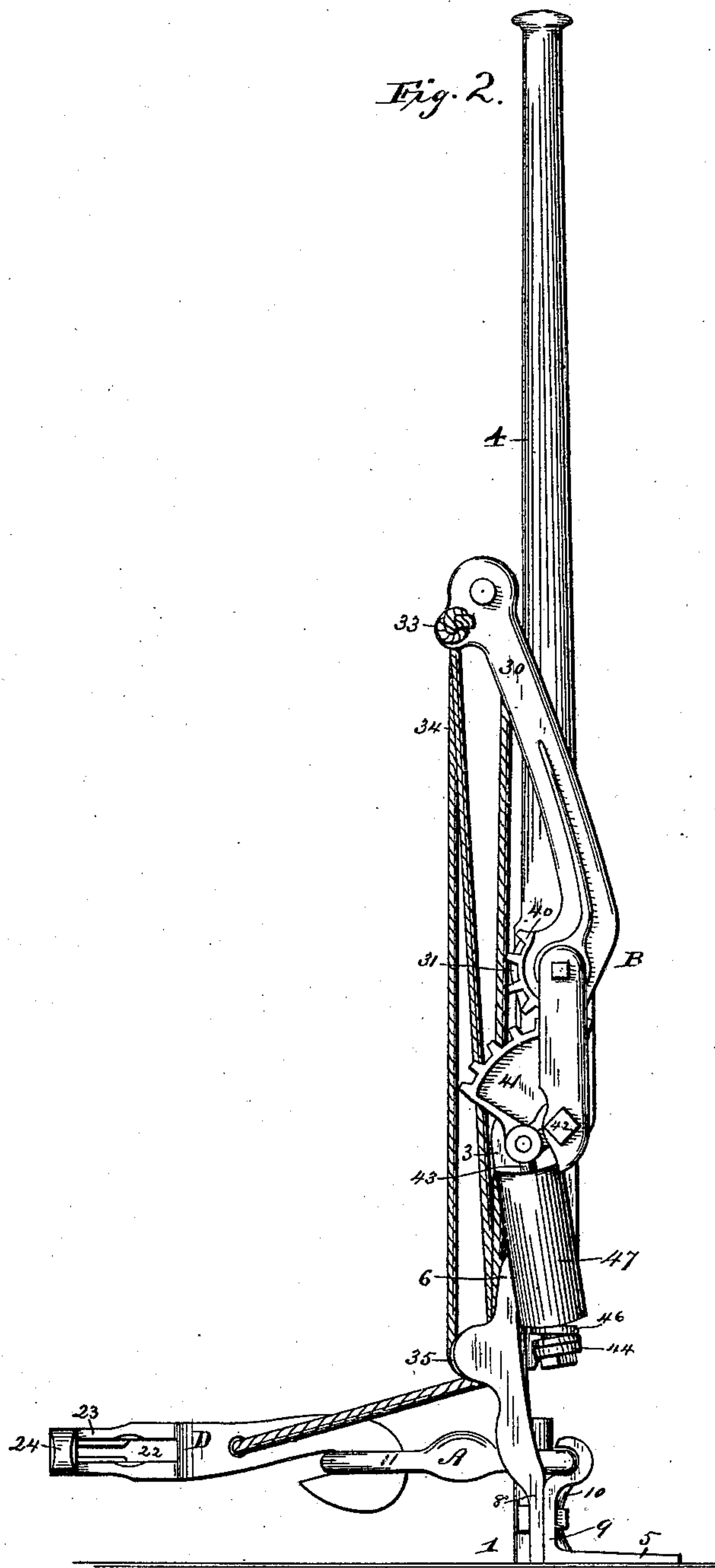
## ANCHOR FOR CHECK ROW CORN PLANTERS.

No. 373,170.

Patented Nov. 15, 1887.



Witnesses.  
Chas. R. Burr.  
A. J. Stearns.



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(No Model.)

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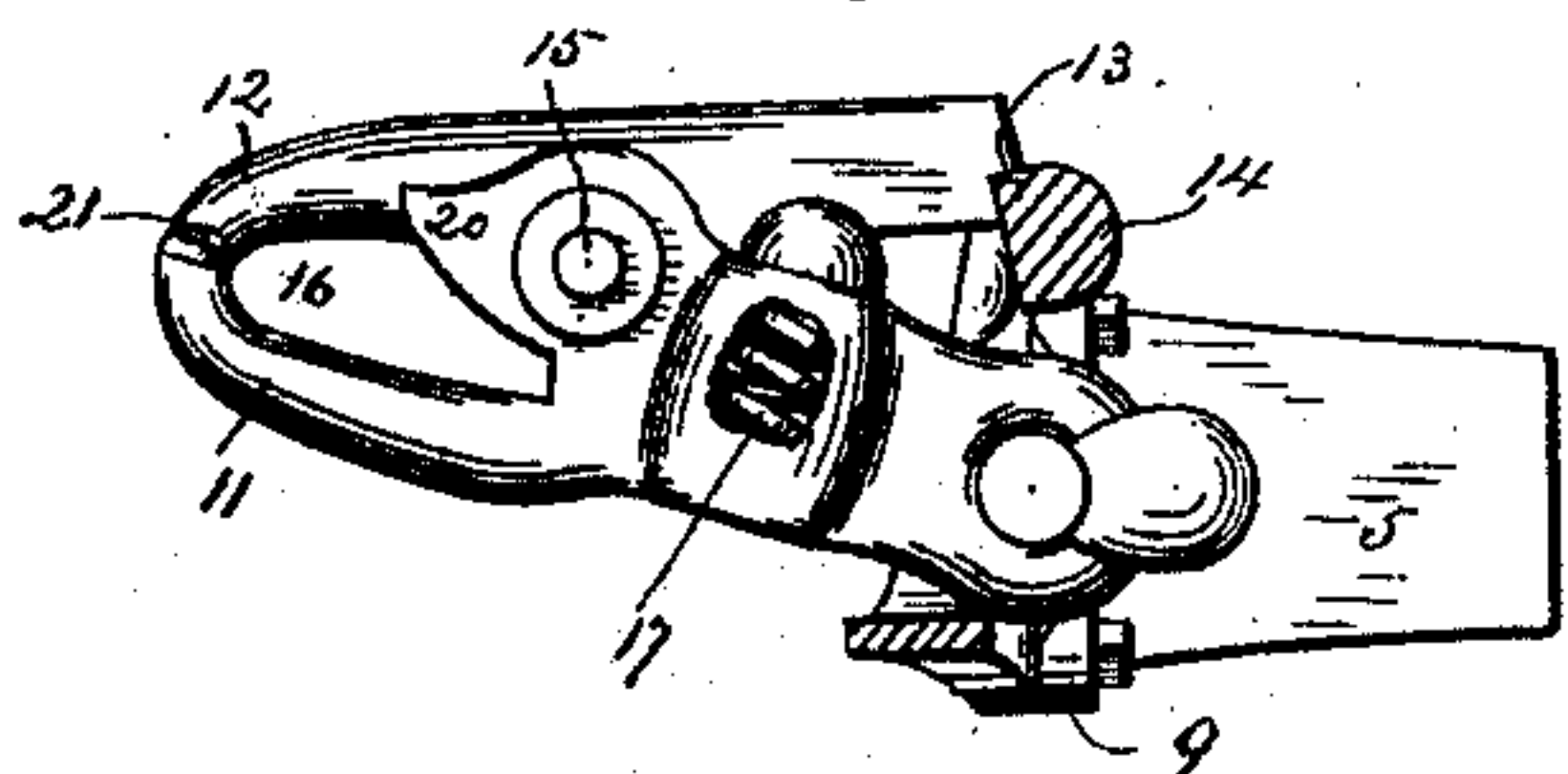
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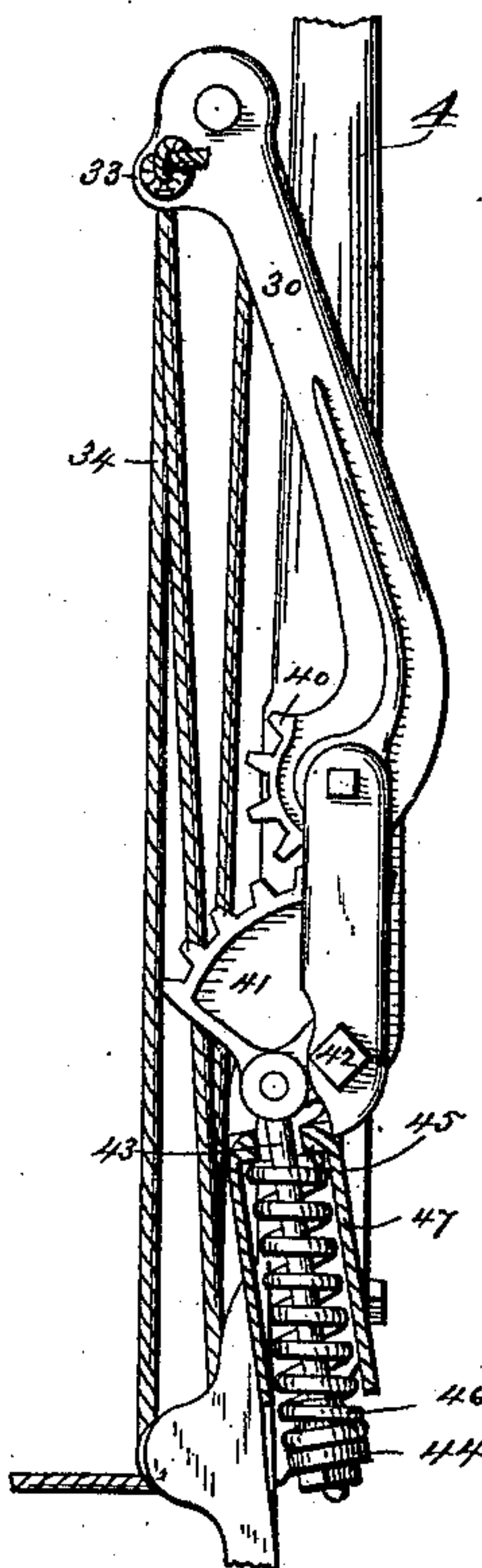
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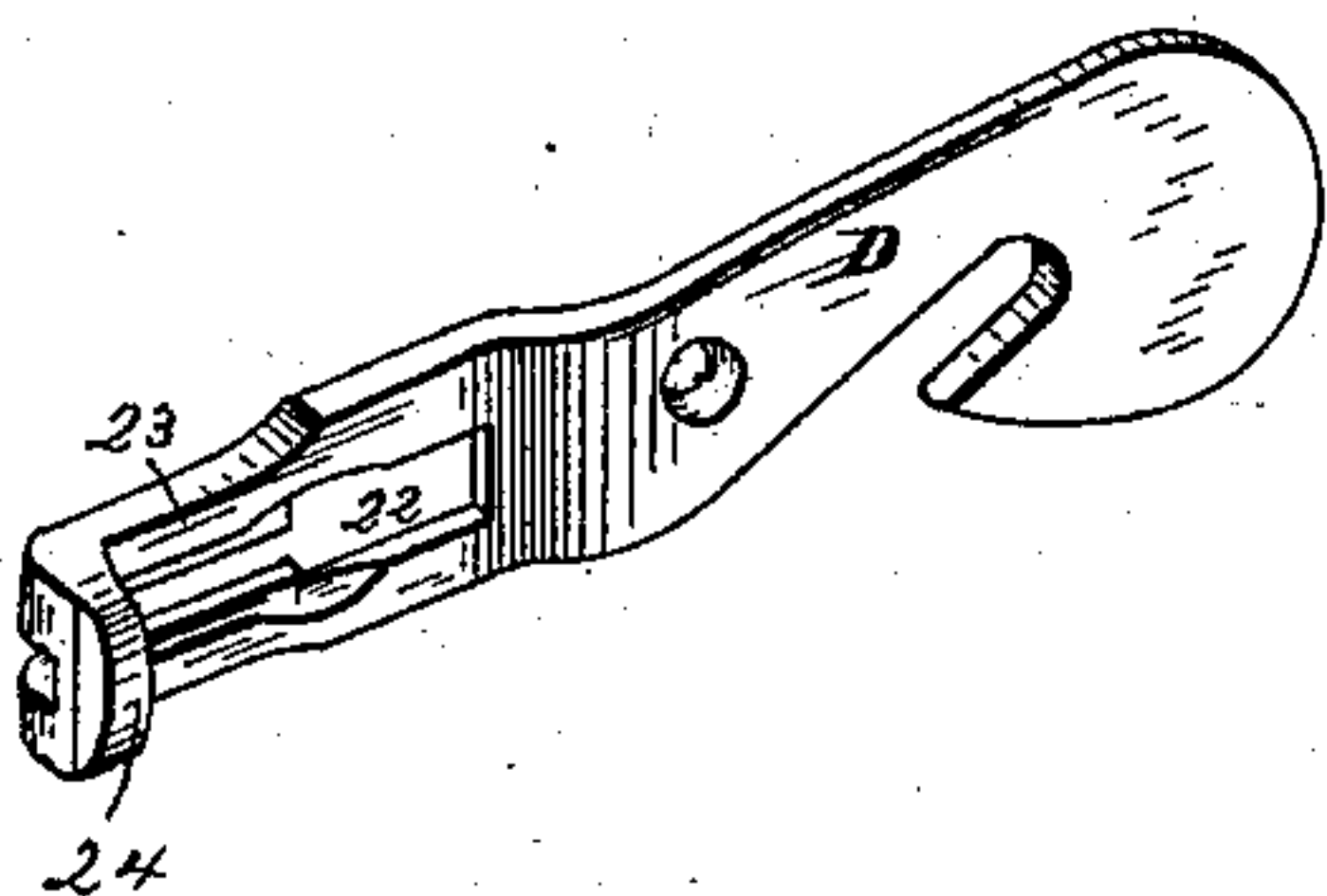
*Fig. 3.*



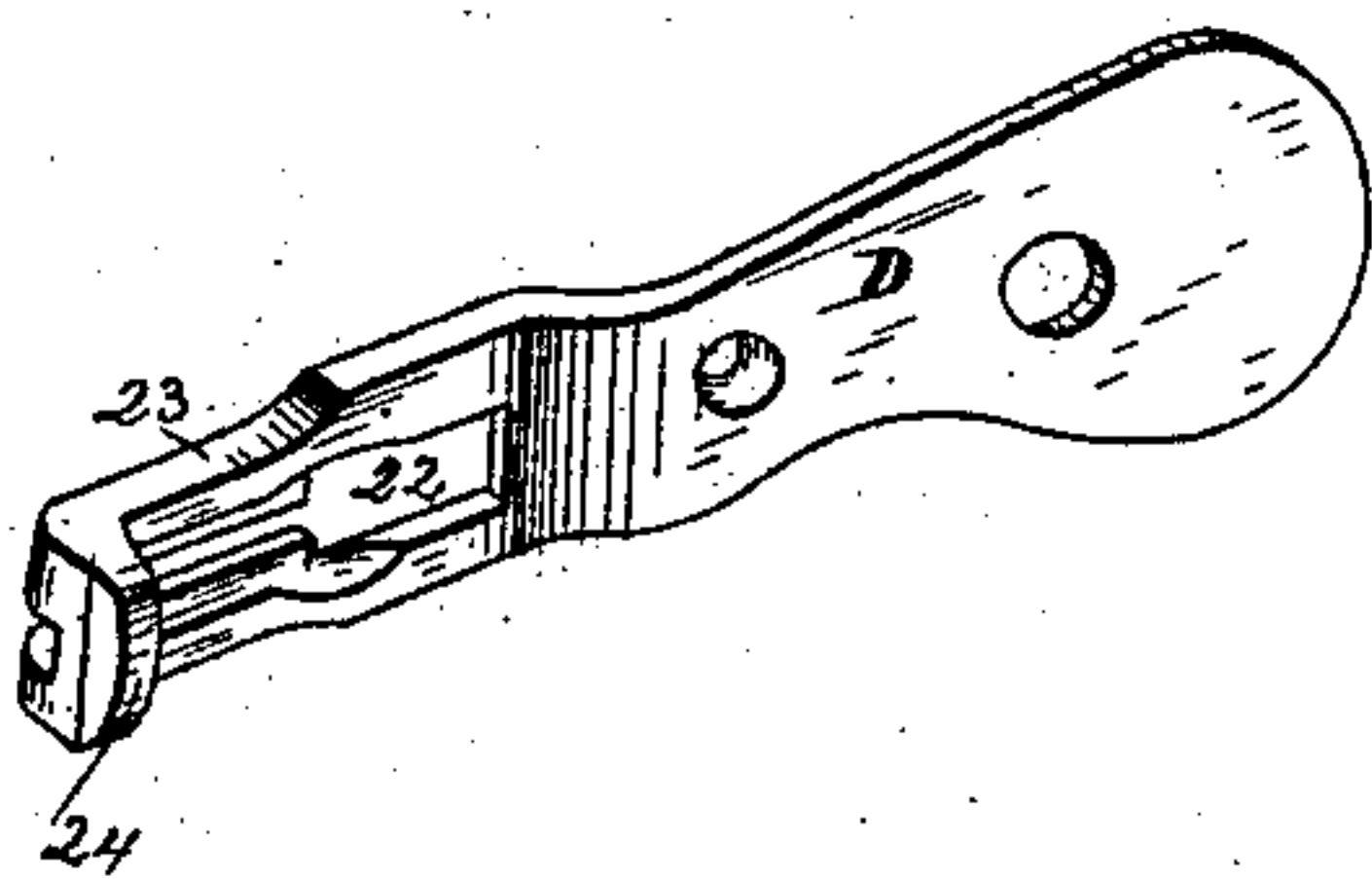
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



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# UNITED STATES PATENT OFFICE.

JOSEPH C. BARLOW, OF QUINCY, ILLINOIS.

## ANCHOR FOR CHECK-ROW CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 373,170, dated November 15, 1887.

Application filed September 28, 1887. Serial No. 250,921. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH C. BARLOW, of Quincy, in the county of Adams and State of Illinois, have invented certain new and useful  
5 Improvements in Anchors for Check-Row Corn-Planters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this  
10 specification, and to the figures and letters of reference marked.

This invention relates to improvements in that class of anchors for which Letters Patent were granted to me August 2, 1887, No. 367,582;  
15 and it comprehends certain changes in structure and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of an anchor illustrating  
20 one embodiment of my present invention. Fig. 2 is a side elevation, and Fig. 3 a top plan view, of the holding-clamp, anchor-pin, and connecting portion of frame, the tension device and its supports being omitted. Fig. 4 is a side elevation,  
25 partly in section, of the tension device. Fig. 5 is a side view of the connecting hook or link; Fig. 6, a similar view of a modified form of link.

Similar letters of reference in the several figures indicate the same parts.

My present improvements are founded upon and embodied in an apparatus containing the essential elements of my prior patented invention—that is to say, it includes a holding and  
35 releasing device, A, and a tension device, B—so connected and supported that the check-row cord or wire which is attached to the holding device will be held firmly in rear of the planter, and as the latter approaches and deflects the  
40 check-row cord or wire to one side the holding device will be automatically tripped to release the check-row cord or wire and transfer the strain to the tension devices.

One of the novel features of my present  
45 anchor relates to the manner of mounting and applying the holding and tension devices, of whatever form employed, upon the supporting-frame. This frame consists of an upright or standard, 1, provided with a pin or pike, 2.  
50 It may be made wholly of metal, or partly of metal and partly of wood, and in the present

example, representing the preferred structure, it is composed of a metal frame, 3, to which are secured a wooden handle or post, 4, and the iron or steel pin 2. The holding and tension devices are for convenience mounted upon  
55 or attached to the frame 3 above the pin 2. The principal object had in view is to utilize the standard or upright both as a support and a lever in holding and adjusting the anchor. 60 Thus when it becomes necessary to shift the anchor the pin is withdrawn from the ground and the point advanced toward the desired locality, and when the anchor has been brought  
65 as near to the designated spot as convenient the point is rested on the ground and the standard forced toward the vertical, and, acting as a lever, it draws the check-row cord or wire attached to the holding device taut and places it under the required initial tension. 70 The check-row cord or wire having been placed under sufficient tension, the point 2 is forced down into the ground to sustain the anchor in position. To facilitate the insertion of the point in the ground a step or foot-piece, 75 5, is attached to the standard at or near the lower end thereof.

As hereinbefore intimated, the holding and tension devices to be used in connection with the lever-standard may be of any approved  
80 construction; but the preferred form is that shown in the drawings, and in order to adapt these mechanisms to the particular form of anchor shown the frame or support may be made as follows: The metal frame or casting  
85 3 is formed with a plate, 6, for the reception of the lower end of the handle 4, a slotted portion, 7, and a lower dependent plate or flange, 8. A plate or casting, 9, on which is secured or formed the step 5 and a retaining groove or  
90 notch, 10, is bolted fast to the plate 8, and between the latter and the plate 9 is formed a groove or way for the reception and retention of the pin 2. The handle 4 is set or inclined slightly to one side of the axis of the pin 2, as  
95 shown in the drawings, for a purpose to be described.

The improved holding device comprises two jaws or levers, 11 and 12, the one 11 provided with a rear extension or prolongation passing  
100 through the slot in the casting 3 and pivoted upon the upper end of the pin 2, the said jaw



being formed with an eye fitting upon the pin 2 and resting within the notch or recess in the plate 9. The rear end of the jaw 12 is provided with a notch, 13, co-operating with a  
 5 lug or corner, 14, of the casting 3. The jaws are pivoted together, as at 15, and their front or outer ends are curved or bent, so that when brought together they will form an eye, 16, for the reception of the connecting hook or link  
 10 D, attached to the check-row cord or wire. A spring, 17, interposed between the jaws serves to hold their front ends closed or together.

It will be observed that as thus arranged the strain brought to bear upon the holding devices is applied directly to the anchor-pin and the lateral movement or swinging of the hooks upon their pivotal point of support is entirely independent of the frame or casting 3, while  
 20 the spring interposed between the jaws serves merely to hold them closed.

The anchor is so placed that when the planter is moving away from it the jaws will be swung to one side and held with the notch 13 on jaw  
 25 12 in engagement with lug 14, whereby the jaws are prevented from opening. As the planter approaches the anchor and the check-row cord or wire is deflected, the holding-jaws are swung to one side and away from the lug  
 30 14, thus releasing the jaw 12 and permitting it to oscillate on jaw 11, when the tension on the check-row cord or wire, acting through the link or hook D, is sufficient to overcome the spring 17, whereby the jaws are opened  
 35 and the check-row cord or wire released.

In setting the anchor it is necessary that the frame or part to which the lug 14 is secured should stand in such position relative to the holding-jaws and the line of draft as to engage  
 40 the notch on jaw 12. To automatically effect this adjustment and insure the proper locking of the holding-jaws, the upper end of the standard or frame, or that portion to which pressure is applied when using the standard as a  
 45 lever, is set slightly to one side of the axis of the pin 2, so that as the check-row cord or wire is drawn taut the standard will be rotated in a direction to bring the rear end of jaw 12  
 50 against and hold it in contact with the lug 14. Thus in the example illustrated the handle is set or inclined slightly to one side of the axis of the pin 2, so that when the standard is supported at opposite extremities—that is to say, at the point of pin 2 and end of handle—the  
 55 pivotal point of attachment between the holding-jaws and standard will be to one side of the axis, and a direct pull upon the holding-jaws, acting through the crank-pin formed by the pivot, will tend to rotate the frame in a  
 60 direction to bring the lug 14 against the rear end of jaw 12.

As in my prior patented anchor, the interlocking of the jaws and release of the check-row cord or wire is effected by deflecting the  
 65 check-row cord or wire to one side of the line of travel of the planter, thereby swinging the holding-jaws on the pivot and removing the

lock, so that the jaws can be forced apart. In said prior device the hook or link which serves to connect the check-row cord or wire and the  
 70 tension-cord worked loosely in the jaws of the holder, and the only leverage which is exerted was through the jaws of the holder. Moreover, the spring which held the jaws closed also held them pressed against the locking-  
 75 lug. Hence it was necessary to employ a comparatively light spring in order that the resistance to the lateral movement and opening of the jaws might not be excessive.

According to my present invention, the jaws  
 80 are locked by being pivoted eccentrically upon the frame, as described, and the connecting hook or link is made to serve as a prolongation of the holding-jaws to increase the leverage. To this end a shoulder, 20, is formed on  
 85 the jaw 11 and a shoulder, 21, on the jaw 12, while the forward or engaging end of the link D is made broad, so that when inserted between the jaws it will take a bearing against said shoulders. These shoulders prevent the  
 90 link from swinging laterally in the eye formed between the jaws, thus making the link in effect a prolongation or extension of the holding-jaws. The check-row cord or wire is attached to the outer or rear end of the link D,  
 95 and when the former is deflected to either side it acts through the link to cause the holding-jaws to oscillate on their pivots. The forward end of the link may be provided with either an open perforation or slot, as shown in Fig. 100  
 6, or a hook, as shown in Fig. 5, for engaging the holding-jaws, the hook form being preferred as being the more easily inserted.

In the rear end of the link D is formed a slot, 22, having narrow flanges 23 at or near  
 105 the end and a cross-piece, 24, on the side opposite said flanges.

In applying the check-row cord or wire to the link, one of the knots or protuberances on the former is inserted through the wider por-  
 110 tion of the slot and pressed back behind the flanges and against the cross-piece at the end, the cord or wire in rear of the knot lying parallel with the link.

The next novel and important feature of in-  
 115 vention relates to the tension and take-up mechanism.

Formerly a frictional device was employed to regulate the paying out of the extension-cord, and when the anchor was set or reset  
 120 the cord had to be retracted or removed by hand. According to my present invention an elastic or spring tension device is employed, which, when the link is released from the holding device, regulates the paying out of the  
 125 extension-cord, and when the strain on the check-row cord or wire is removed or sufficiently diminished automatically retracts the extension-cord and places the parts in position.  
 130

The preferred arrangement is that shown in the drawings, and consists, essentially, of an arm or lever, 30, pivoted upon the vertical extension 31 of casting 3, and carrying at its



outer end a pulley, 32, and eye or attaching device 33, to which the end of the extension-cord 34 is secured.

The cord 34 passes from the end of lever 30 around one of the pulleys 35, mounted in bearings in frame 3 above the holding-jaws, thence up around pulley 32 and down under the other pulley 35, its end being secured to the link D at or near the center thereof. As regards these parts, the arrangement is not substantially different from the corresponding parts in my prior patented device, with this exception, that the lever is attached to and moves in the plane of the upright or bar, thereby dispensing with the necessity for using a guide-roller.

In place of the ratchet and frictional resisting devices, I make use of a suitable spring tension device for resisting the downward movement of the lever and effecting its return when the extension-cord is released.

A convenient mode of applying a spring tension device is shown in the drawings, consisting of a toothed segment, 40, formed upon or attached to the cord carrying the arm 30, said segment co-operating with a toothed segment, 41, pivoted, as at 42, to the frame.

To the segment 41 is pivotally attached a plunger or link, 43, carrying at its lower end an adjustable collar, 44, between which and an abutment, 45, is interposed a spring, 46. The spring and plunger are protected by a casing, 47. The spring tends to hold the segment 41 pressed forward and the cord-carrying arm elevated or retracted, so that as the extension cord is drawn out the spring will be compressed, and as soon as the tension is removed from the extension-cord the latter will be retracted or set preparatory to the next operation. By means of the collar 44 the initial tension of the spring can be adjusted.

The extension-cord may, if desired, be connected to the link after passing around one of the pulleys 35, thus dispensing with one of the pair of pulleys 35 and the pulley in the end of the cord-arm; but such an arrangement would be inconvenient, as the length of the cord-arm would have to be increased or the extension-cord shortened. Hence I prefer to employ the pulleys and return the cord in order to reduce the size of the cord-arm, and at the same time accommodate a long extension-cord. For a like reason I apply the spring-tension to the cord-arm through the medium of gear-segments instead of connecting it directly to the cord-arm, as by so doing I am enabled to diminish the throw of the plunger and employ a shorter and stouter spring for a given movement of the cord-arm.

Having thus described my invention, what I claim as new is—

1. An improved anchor for a check-row cord or wire, consisting, essentially, of a holding and releasing device and a tension mechanism attached to an upright provided with an anchor-pin, substantially as described.

2. The combination, in an anchor such as described, of a holding device and a frame therefor composed of an upright or standard carrying an anchor-pin, the latter projecting below the holding device and, in connection with the frame, forming a lever for adjusting the tension of the check-row cord or wire, substantially as described.

3. In an anchor such as described, the combination, with an upright or standard carrying the anchor-pin and serving as a lever to locate the anchor, of a holding device for the check-row cord or wire pivoted to the standard eccentrically to the axis of the latter, substantially as described.

4. The combination, with the standard or upright provided with the anchor-pin, of the holding-jaws pivotally connected to the said pin, substantially as described.

5. In combination with the frame or standard to which the anchor-pin is attached, the holding and releasing device consisting, essentially, of two jaws pivoted together, one of said jaws being pivoted to the anchor-pin and the other provided with a notch or shoulder for engaging a shoulder on the frame, substantially as described.

6. In an anchor such as described, the combination, with the anchor-pin and inclined standard or upright, of the holding-jaws pivoted together and to the anchor-pin, and a locking-shoulder on the standard engaging one of said jaws, substantially as described.

7. In an anchor such as described, the combination of the handle anchor-pin and intermediate frame or casting, pivoted holding-jaws, and tension device, substantially as described.

8. In an anchor such as described, the combination, with the slotted frame 3 and the anchor-pin, of the removable clamping-plate provided with the shoulders and the holding-jaws projected through and engaging said frame and pivoted upon the anchor-pin, substantially as described.

9. In an anchor such as described, the combination, with the holding and tension mechanism supported upon a standard or upright, of the step and the anchor-pin secured to the standard below the holding-jaws, substantially as described.

10. In combination with a frame carrying a dependent anchor-pin, a pair of jaws connected together and pivotally attached to the anchor-pin, and a locking device for holding the jaws closed when swung to one side, substantially as described.

11. In combination with the holding-jaws pivotally mounted upon a support and provided with retaining-shoulders, a link slotted for the reception of said jaws and engaging shoulders on the latter and operating as a lever to oscillate the jaws, substantially as described.

12. In combination with the holding-jaws pivotally secured to the support, a tension device, and an extension-cord attached thereto, a link or hook connected to both the exten-



sion-cord and the check-row cord or wire and engaging shoulders on the jaws of the holding device, substantially as described.

13. The improved coupling hook or link for 5 connecting the check-row cord or wire and holding device, consisting, essentially, of a bar or plate slotted at one end for the retention of a knot or protuberance on the check-row cord or wire and at the other end formed with a 10 slot to accommodate the jaws of the holding device, and a shoulder or extension to engage a shoulder on the holding device, substantially as described.

14. In an anchor such as described, pro- 15 vided with an automatic holding and releasing device for the check-row cord or wire, an elastic tension device connected through an extension-cord with the check-row cord or wire, said tension device operating to retract 20 or withdraw the extension-cord, substantially as described.

15. In an anchor such as described, and in combination with the upright or standard carrying the anchor-pin and holding and releasing device, an extension-cord connected to the 25 check-row cord or wire, an arm pivoted upon the standard and engaging the extension-cord, and a spring acting upon the arm to retract the latter, substantially as described.

30 16. In an anchor such as described, the combination of a pivoted cord-arm provided with a toothed segment, a pivoted segment engaging the cord-arm segment, a plunger or link attached to the pivoted segment, and a spring 35 interposed between a shoulder on the plunger and a stationary abutment, substantially as described.

17. In an anchor such as described, the combination, with the upright or standard carrying the anchor-pin, the eccentrically-pivoted 40 holding-jaws, and a locking-shoulder therefor, of an elastic tension mechanism mounted upon the standard above the holding-jaws, substantially as described.

18. An anchor for check-row cords or wires, 45 consisting, essentially, of an upright or lever provided with an anchor-pin and carrying automatic holding and releasing jaws for the check-row cord or wire, substantially as described. 50

19. An anchor for check-row cords or wires, consisting, essentially, of an upright or lever having an anchor-pin attached at one end, automatic holding and releasing jaws pivoted directly upon the anchor-pin, and a tension de- 55 vice mounted upon the upright or lever, substantially as described.

20. An anchor for check-row cords or wires, composed, essentially, of an upright carrying an anchor-pin at one end, the whole forming 60 a lever, automatic holding and releasing jaws for the check-row cord or wire pivotally secured to the lever on one side of the longitudinal axis thereof, and a link engaging said holding and releasing jaws and restrained from lateral 65 movement independent of the jaws by shoulders on the latter, the whole combined and arranged substantially as and for the purpose specified.

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Witnesses:

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