No. 621,081. Patented Mar. 14, 1899.

# C. HENSLEY.

## MID-WIRE TAKE-UP.

(Application filed Dec. 10, 1898.)

(No Model.)

FIG. 1.

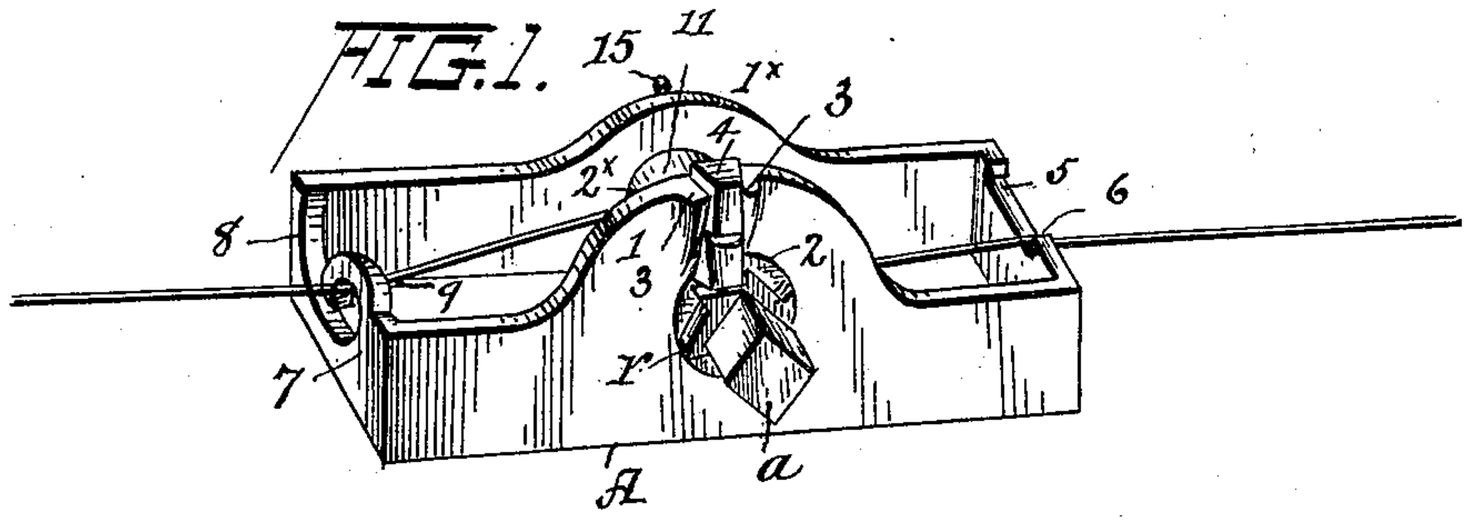



FIG. 2.

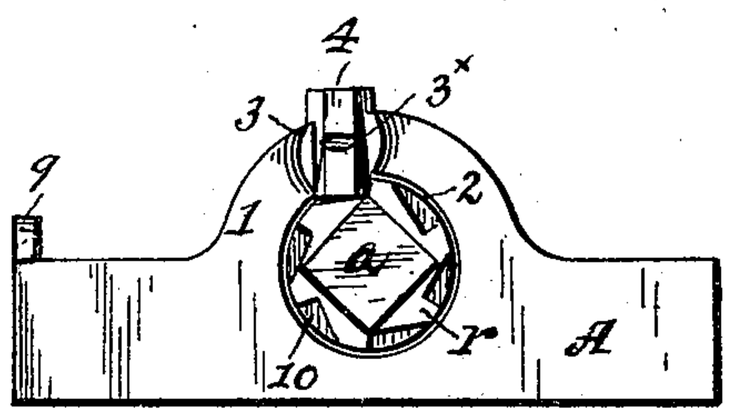



FIG. 4.

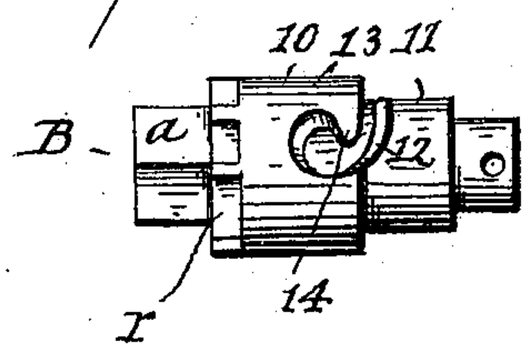



FIG. 5.

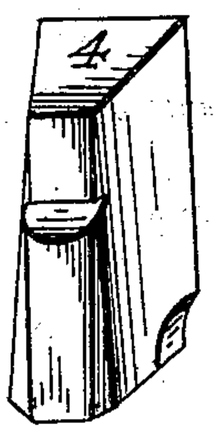
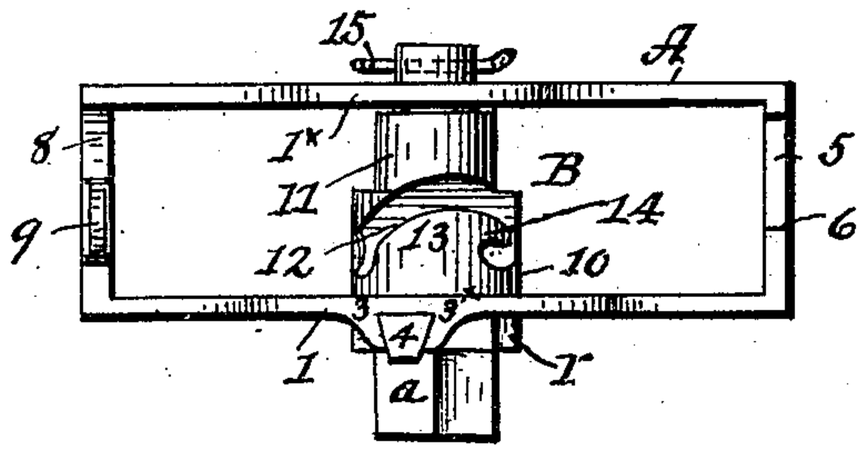



FIG. 3.




Witnesses
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# UNITED STATES PATENT OFFICE.

CLINTON HENSLEY, OF McGAHEYSVILLE, VIRGINIA.

## MID-WIRE TAKE-UP.

SPECIFICATION forming part of Letters Patent No. 621,081, dated March 14, 1899.

Application filed December 10, 1898. Serial No. 698,868. (No model.)

*To all whom it may concern:*

Be it known that I, CLINTON HENSLEY, a citizen of the United States, residing at McGaheysville, in the county of Rockingham and State of Virginia, have invented certain new and useful Improvements in Mid-Wire Take-Ups for Wire Fencing, of which the following is a specification.

My invention relates to improvements in mid-wire take-ups adapted to be applied to a strand of wire fencing at any convenient or desired point and by its operative functions take up the slack in the wire and tighten the strand and hold it taut; and the object of my invention is to provide a device or implement of the kind named and for the purposes intended which is simple and cheap in construction, durable in use, and efficient and certain in operation and results.

I have fully and clearly illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a perspective view of my invention as applied to a strand of fencing. Fig. 2 is a side view showing the ratchet on the tightening-spool, the wrench-head of the spool, and the pawl-slide or bolt which locks the spool in any position to which it may be turned. Fig. 3 is a top plan view of the device. Fig. 4 is a detail view of the tightening-spool. Fig. 5 is a detail view of the sliding pawl or locking-bolt.

Referring to the drawings, A designates a suitable rectangular housing or box, open at top and bottom, made of cast or malleable metal, and of such size and dimensions as to adapt it for the uses and purposes intended. The side pieces of the box are carried upward in curved direction and contour, as at 1 $1^{\times}$, to provide ample room for the bearings of the tightening-spool, and in the widened portions of the sides are formed bearings 2 $2^{\times}$, the former of which is of larger diameter than the latter, so that the spool may be withdrawn from the end whenever it is desired to take the device from the position on a strand of wire. The bearing $2^{\times}$ is adapted to take the reduced end of the tightening-spool. On the face of the box or casing, central with the larger bearing 2, are formed vertical flanges 3 $3^{\times}$, inclined vertically toward each other from bottom to top and gibbed on their inner edges to take and hold coincident side flanges of a vertically tapering and sliding pawl or bolt 4, adapted to engage by gravity with the teeth of a ratchet on the tightening-spool, as hereinafter specified. In one end of the box or casing the metal is cut away for a distance, as at 5, leaving a shoulder 6, against which the strand of wire from that direction bears when being wound up in the process of tightening, so that the strand will not be carried over farther than the shoulder and lap or become involved with the turns of the wire on the other portion of the tightening-spool. The other end 7 of the casing is cut away in curved contour substantially as shown at 8, and from the upper edge end of this curve, being that about in alinement with the base of the wire-slot, is formed a guide and retaining hook 9, the end of which is carried down and curved back on itself to constitute a means for holding and retaining the wire in engagement therewith and against escape when the device is applied in position.

B designates the winding and tightening spool, having one part or section, as at 10, of a diameter to fit the larger bearing in the casing and a part or section 11 of less diameter and having a journal portion fitting in the smaller bearing of the casing. The end of the spool projects beyond the larger bearing, and on this part, closely adjacent to the side of the casing, the spool is formed with a ratchet *r*, the teeth of which are engaged by the gravity sliding bolt or pawl, and thus the spool is held locked in any position to which it is turned in the operation of tightening the fence-strand. The end of the spool projecting beyond the ratchet is made angular, as at *a*, to provide means for applying a wrench or crank to operate the spool. At about the middle of the spool, entering at the union of the parts or sections 10 11 and carried into the larger and stronger portion of the spool, is formed a wire-slot 12, which is curved inward from its mouth or entrance and inclined transversely to the axis of the spool, as shown in the drawings, the overhanging portion 13 being formed with a hook or downwardly and inwardly extended projection 14, in and under which the strand of wire engages and is securely held preparatory to and during the process or operation of taking up the slack.

This wire-slot is made inclined transversely to the axis of the spool in order that the wire will be yanked out of a straight line at the portion where it passes through the wire-slot and be pressed in and held firmly in the slot under the hook. The spool is held in its bearings in the casing by means of a split key 15 let through a hole in the projecting end of the spool, as indicated in the drawings.

The application and operation of my improved mid-wire take-up are as follows: The device is placed against the slack wire and the wire then pressed into the wire-slot and under the hook thereon, and when the wire passes over the end of the casing provided with a hook the wire is pressed into engagement with that hook. The device is now held to the wire by the slot and hook connections. A wrench or crank is now applied to the wrench-head of the spool, and then by turning the spool the wire is wound on the spool from both directions and the slack taken up. When the slack has thus been taken up, the device remains on the wire, the spool being locked by the engagement of the bolt with the ratchets of the spool.

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

1. A mid-wire take-up, comprising a rectangular casing formed with a wire-guide shoulder at one end, and a wire-retaining hook at the other and vertical flanges on the side inclined from bottom to top toward each other, a tightening-spool journaled in the casing having a wire-slot arranged and inclined transversely to the axis of the spool and a hook on the edge wall of the slot to take and hold the wire, a ratchet on the spool outside of the casing and a wrench-head on the spool, and a tapering gravity-bolt in the way between the flanges on the casing, to engage the ratchets and lock the spool against return movement.

2. A mid-wire take-up, comprising a suitable casing having shoulders 6, at one end and a wire-retaining hook at the other, and formed with flanges on the side approaching each other from bottom to top, a spool journaled in the casing formed with two winding-sections of different diameters, a wire-slot in the spool extending into the larger portion of the spool and inclined transversely to the axis of the spool and having a wire-retaining hook, a ratchet on the spool outside of the casing and a wrench-head, and the tapering gravity-bolt in the inclined flanges on the casing to engage the ratchets.

3. A mid-wire take-up, comprising a rectangular casing formed with a shoulder at one end to guide and control the wire, a hook on the other end to hold and retain the wire, and having flanges on the side of the casing to receive and hold a gravity-acting bolt, a tightening-spool journaled in the casing and formed of two winding-surfaces of different diameters, a wire-slot inclined transversely to the axis and entering and extending into the body of the larger winding portion formed with a hook on the edge wall of the slot to take and hold the wire in the slot, a ratchet on the larger end of the spool and a wrench-head, and a tapering acting bolt between the flanges on the casing and engaging with its lower end the ratchet on the spool to lock it against return rotation when the slack of the wire is wound on the spool.

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

CLINTON HENSLEY.

Witnesses:
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HERBERT W. T. JENNER.