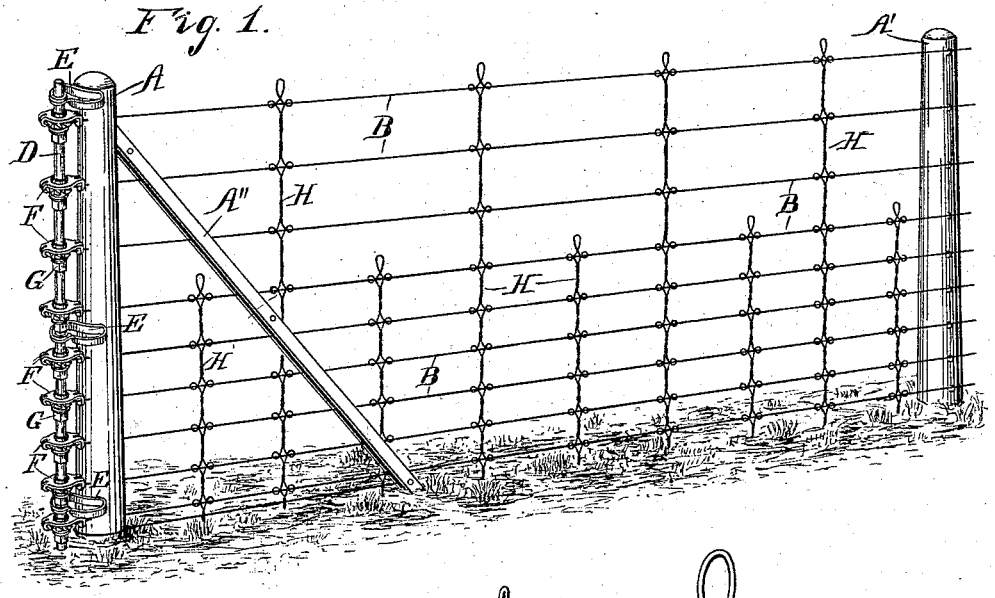
(No Model.)

E. D. BARLING.

WIRE FENCE.

No. 526,368. Patented Sept. 18, 1894.

Fig. 1.



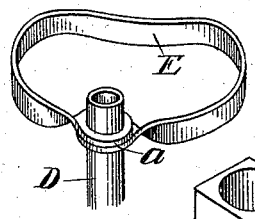


Fig. 2.

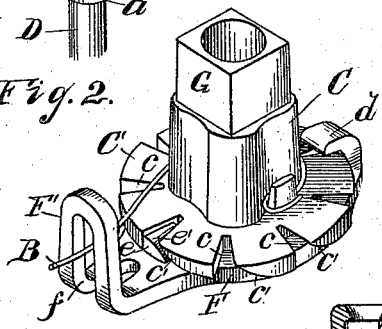


Fig. 3.

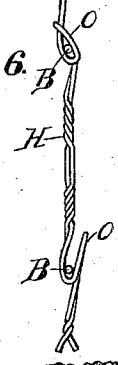


Fig. 6.

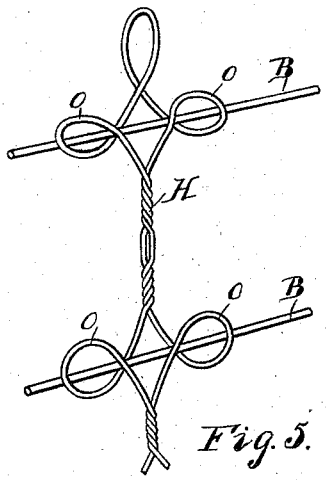


Fig. 5.

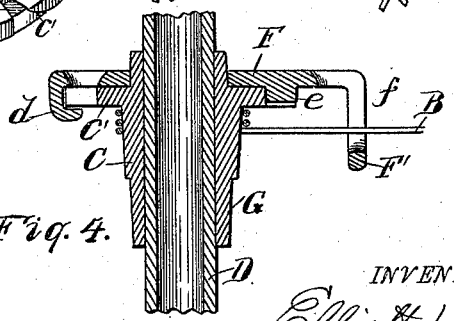


Fig. 4.

WITNESSES

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ELLIOTT D. BARLING, OF PONTIAC, MICHIGAN.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 526,368, dated September 18, 1894.

Application filed May 12, 1894. Serial No. 511,031. (No model.)

To all whom it may concern:

Be it known that I, ELLIOTT D. BARLING, a citizen of the United States, residing at Pontiac, in the county of Oakland, State of Michigan, have invented certain new and useful Improvements in Wire Fences; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in wire fences, and consists in a certain construction and arrangement of parts, as hereinafter fully set forth, the essential features of which being pointed out particularly in the claims.

The object of the invention is to produce a wire-fence of cheap and simple construction that may be quickly set up, and wherein the longitudinal wires are securely supported by detachable vertical stays, and provision is made for applying tension to said wires, and retaining them yieldingly in place so as to compensate for the expansion and contraction thereof, which object is attained by the construction and arrangement of parts, illustrated in the accompanying drawings, in which—

Figure 1 is a general perspective view of a section of my improved fence. Fig. 2 is an enlarged detail in perspective of the vertical end shaft or rod which carries the series of ratchet drums upon which the wires are wound, and one of the springs in which said rod is supported. Fig. 3 is an enlarged inverted perspective of the ratchet mechanism. Fig. 4 is a central vertical section through the same. Fig. 5 is an enlarged detail of the stay showing its engagement with the longitudinal wires. Fig. 6 is a side elevation of the same.

Referring to the letters of reference, A designates the end post, and A′ one of the intermediate posts upon which the longitudinal wires B of the fence are freely supported. These longitudinal wires are strung in any desired number, and the requisite distance apart, being firmly secured to an anchor post (not shown) at one end, and the other end passing through the post A, and winding upon their respective drums C which are rotatively mounted upon a vertical rod D standing adjacent to said post and coupled therewith by the elliptical springs E which are interposed between said post and rod and through the meeting ends *a* of which, said rod passes, as shown in Fig. 2.

Formed integral with the drum C is a ratchet-disk C′ having a series of radial slots *c* opening through the periphery thereof and provided with a beveled edge, as shown at *c′* in Fig. 3.

F designates a plate which is seated upon the ratchet disk C′, having a central opening through which the hub *b* of said disk extends and in which it is journaled. One end of said plate is provided with a depending hook *d* which engages freely over the edge of the disk C′, to retain said parts in their proper relative positions. Depending from the under face of said plate is a detent-lug *e* having a beveled face *e′*. (See Fig. 3.) Said detent is adapted to engage in the slots in the disk C′ to prevent said disk from turning backward, but, through the meeting beveled faces of said detent and slots, permitting a free forward rotation of said disk in unwinding the wire upon the drum C, the plate F rising to permit said detent to ride out of each succeeding slot as the ratchet-disk is rotated. Extending from said plate F is a right angle arm F′ provided with a slot *f* in the depending end thereof through which the wire B passes and which guides said wire onto the drum C and also prevents said plate from turning with the disk C′. There is one of these ratchet devices mounted on the vertical rod D, for each one of the line wires of the fence. Said wires after passing through the post A′ and the slot *f* in the arm of the plate F, are wound around the drum C being secured thereto by entering the end thereof between the face of the drum and the stud *h* depending from the under face of the disk C′ as shown in Fig. 3. The rotation of said drums is effected by placing a wrench upon the squared shank G thereof, whereby they are turned until the proper tension has been placed upon the wires B, when said drums are locked by the detent *e* engaging the ratchet disk C′.

Should it be desired to slacken any one of

the lateral wires, a wrench is placed upon the shank G of the drum upon which said wire is wound, and said drum held so that the plate F may be raised to disengage the detent *e* from the slots in the ratchet disk, when said drum will be free to turn backward to unwind the wire therefrom, being again secured by dropping said detent into the slots of the disk C′, as will be readily understood.

By reason of the interposition of the springs E between the rod D carrying the ratchet mechanism and the post A, provision is made for the free expansion and contraction of the longitudinal wires of the fence and the maintenance of a uniform tension thereon.

The stay wires H for supporting the longitudinal wires, are composed of two strands of wire twisted together in which diametrically opposed loops *o* are formed in pairs and at such distance apart as to correspond with the line wires of the fence which they are to support. These loops in the stays are formed open so as to freely receive the line wires which lie across them, enabling said stays to be readily and quickly placed upon the wires of the fence, when said loops are slightly twisted so as to tightly grip said lateral wires, as shown at the top of Figs. 5 and 6, thus firmly supporting each of the longitudinal wires of the fence and securely fastening said stays against lateral movement. If it is desired to remove the stays from the fence, the loops *o* may be opened to disengage them from the line wires, when they may be easily removed enabling the fence to be taken down and again set up.

It will be understood that this improved fence may be made of any number of wires arranged at any suitable distance apart, the stays being made to conform to any predetermined distance between the line wires.

To more firmly support the end post A it is provided with a suitable brace A″, as shown in Fig. 1.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fence, the combination of the longitudinal wires, the end post through which said wires pass, the vertical rod adjacent thereto, the ratchet carrying drums journaled upon said rod and upon which said wires are wound, and the elliptical springs supporting said rod and bearing against said post.

2. In a fence, the combination of the longitudinal wires, the end post through which said wires pass, the rotative drums mounted on a rod and having a ratchet disk, the non-rotative plate located above said disk and having a detent that engages therewith, and the elliptical springs supporting said rod and bearing against said post.

3. In a fence, the combination of the line wires, the vertical stays consisting of two strands of wire twisted together and having formed thereon diametrically opposed loops extending in opposite directions in the same plane forming a seat or notch within the loops in which said line wires lie, said loops being twisted or sprung together to confine said line wires therein.

4. In a fence, the combination with the longitudinal wire and vertical stay, the rotative drum upon which said wire is wound having an integral ratchet disk, the non-rotative plate located above said disk, said plate having a depending hook that embraces the periphery of said disk and a detent that engages the ratchet openings therein, said plate also having the slotted arm that receives and guides the wire to said drum, and means for rotating said drum, substantially as set forth.

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

ELLIOTT D. BARLING.

Witnesses:
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