(No Model.)

R. E. CURTICE.

WIRE FASTENER.

No. 553,748. Patented Jan. 28, 1896.

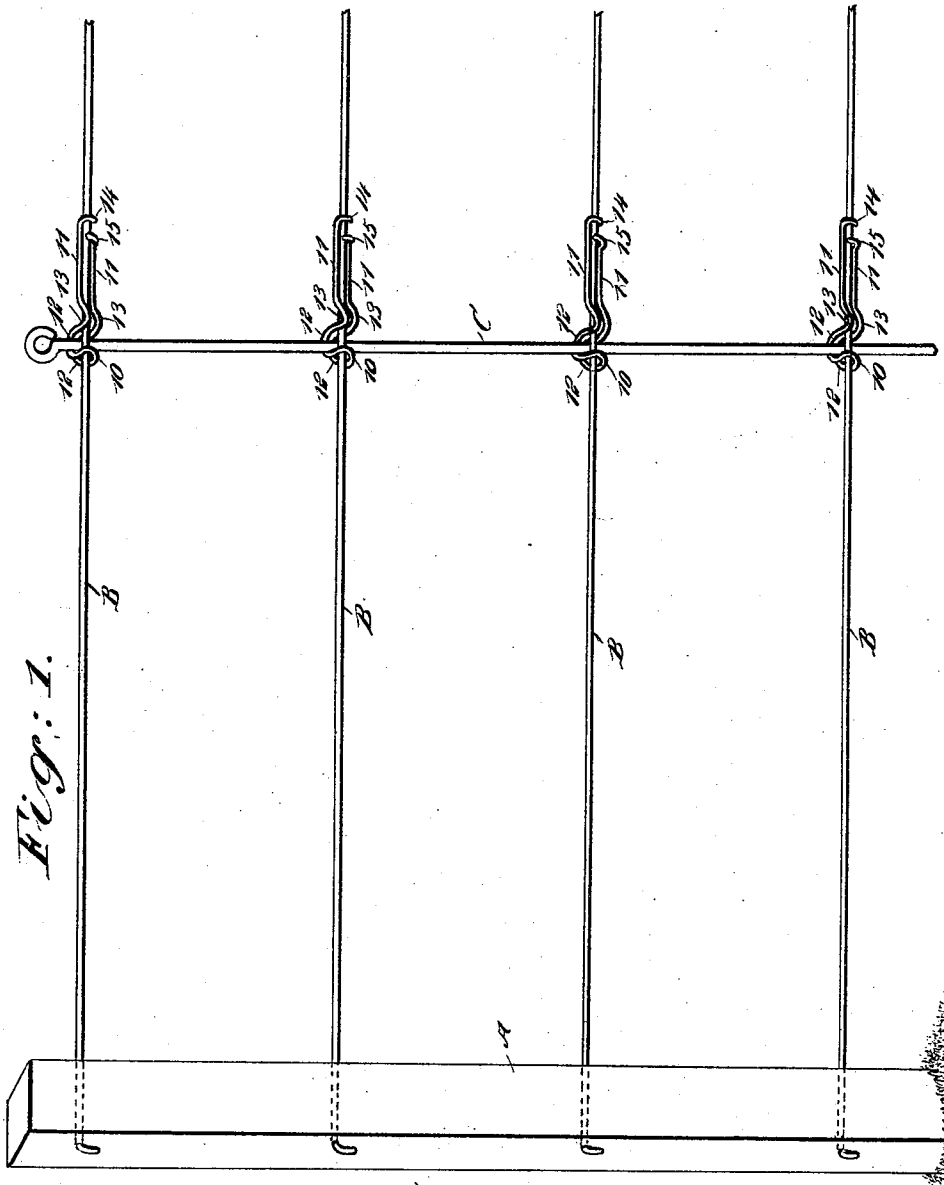

Fig. 1.

Fig. 2.

Fig. 3.

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REUBEN E. CURTICE, OF SPENCER, OHIO, ASSIGNOR TO HIMSELF AND REASON MONOSMITH, OF SAME PLACE.

WIRE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 553,748, dated January 28, 1896.

Application filed January 7, 1895. Serial No. 534,056. (No model.)

To all whom it may concern:

Be it known that I, REUBEN E. CURTICE, of Spencer, in the county of Medina and State of Ohio, have invented a new and Improved Wire Fence, of which the following is a full, clear, and exact description.

This invention relates to wire fences of a class provided with upright stay-rods which are secured at intervals on the fence-wires to keep them spaced and parallel; and the object of the invention is to provide novel spring-clasps for a wire fence of the class indicated which will be simple and cheap in construction, which may be quickly and very conveniently applied, and that will when applied retain the vertical stay-rods on the fence-wires and permit their ready removal should this become necessary.

The invention consists in the construction and combination of parts, as is hereinafter described, and indicated in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a portion of an end panel of a wire fence and the improved clasps applied to retain a stay-rod in connection with the fence-wires. Fig. 2 is a detached enlarged perspective view of the improved fence-wire clasp in its preferred form, and Fig. 3 is a similar view of a slightly-modified form of the clasp.

In the drawings, A represents one of a series of fence-posts provided for the support of a long line of wire fence, which posts are planted, as usual, in an upright position in the ground.

The fence-wires B, in proper number, have one end of each secured to the post A at correct distances apart, thus providing a barrier to prevent the free passage of animals or persons over ground encompassed by the fence, and when erected the fence-wires which are shown as broken off are extended to any required length.

The stay-rod C is of a kind in common use, and consists of a cylindric wire rod of sufficient length and diameter for effective service, and when the fence-line is erected said stay-rods, in proper number, are provided for supporting the fence-wires in a spaced condition between the fence-posts, the latter being usually located at considerable distances apart. Ordinarily the stay-rods for a wire fence are secured on the fence-wires, so as to hold them parallel, by wrapping thin wire strands around each rod and the wires where the latter are impinged by the upright rods.

It is a matter of considerable labor, and necessarily consumes a good deal of time, to properly tie the stay-rods of a wire fence to the wires by the use of wire strands, as mentioned, and in case the fence, or a portion of it, has to be moved the removal of the tie-wires is tedious.

The improved device which is the subject of this invention affords a simple, strong and durable spring-clasp, which can be quickly placed and as quickly removed by a proper manipulation, but is not liable to displacement unless this is designedly effected.

The improvement comprises a binding-clasp constructed from a single strand of spring-wire as follows: The spring-wire blank that is furnished of a correct length for the production of one of the improved clasping devices is bent near its center of length, so as to form the loop 10, the two limbs 11 thus produced being spaced apart by said loop formation. At a suitable distance from the loop 10 the limbs 11 are bent forwardly in curves, as shown at 12 in Figs. 2 and 3, thereby affording two U-shaped formations that are spaced apart by the loop 10. Two similar loops 13 are formed on the limbs 11 by their ogee curvature, as clearly indicated in Figs. 1 and 2, the straight remaining portions of the limbs 11 being thus disposed in about the same plane substantially at a right angle with the vertical plane of the loop 10, each loop 13 occupying the same horizontal plane as the straight limb it is an integral portion of and lies adjacent to. There is a downwardly-extending hook 14 formed on the extremity of the upper straight limb 11, and a similar upwardly-projecting hook 15 is formed on the lower one of the two parallel straight members 11, said hooks being curved in the direction of each other.

When the spring-clasp that has been described is to be applied for the clamped attachment of the stay-rod C, for example, to the upper fence-wire B, this is readily effected by first passing the device over the fence-wire, so as to locate said wire in the loop 10, which will dispose the limbs 11 one above and the other below the fence-wire and in contact with it or nearly so. As clearly shown, the curved formations or rear loops 12 are so projected behind the fence-wire B that room is afforded for the insertion of the stay-rod C between the loops 12 and fence-wire, and for effective service the parts of the clasping device must be so proportioned with relation to the diameter of the stay-rod that the latter will closely fit in the apertures bounded by the two curved formations 12 and the wire B, so that the introduction of the stay-rod at one end of the same will enable the clasping device to firmly bind the rod C and wire B together. When the loops 12 are horizontal and projected rearward from the engaged fence-wire B, as has been explained, the other forward loops 13 will lie above and below the fence-wire, and these loops afford spring action to the limbs 11, so as to forcibly press their hooks 14 15 against the fence-wire, thereby completing the attachment of the clasping device to the fence-wire and stay-rod.

It will be evident that from the peculiar formation of the novel clasping device which has been described a certain degree of spring action is permitted where the stay-rod is embraced by the loops 12, so that climatic changes in temperature to which the wire fence is exposed will be compensated for, and the clasping of the wires and stay-rods of the fence will be equally reliable in summer heat and the coldest weather.

It is obvious that one of the improved spring-clasps is to be provided for each fence-wire where it is to be connected with an upright stay-rod, as shown in Fig. 1, and when the clasps are in position the simple act of thrusting the rod down through the loops 12 on each clasp will fix the rod C and clasps on the wires and hold the latter correctly spaced apart.

In Fig. 3 the construction of the clasping device is the same as that represented in Figs. 1 and 2, with the exception that one of the limbs 11 is removed at the front end of one member of the lower loop 12, or it may be that the upper limb is cut off and the lower limb is left remaining. In either case the removal of one limb will not materially affect the utility of the clasping device, but it is preferred on account of the slight advantage afforded by using the pair of limbs and the more symmetrical appearance conferred by their employment, that two substantially similar spring-limbs 11 having the hooks 14 15 be provided for the improved stay-rod holder and fence-wire clasp.

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

1. A stay-rod holder and fence-wire clasp, comprising a wire bent upon itself to form a loop and two approximately parallel members and then having both of its members bent to form with the members of the first loop two U-shaped loops, lying one above the other and at right angles to the said first loop, one member being then bent in a reverse direction to form a loop and then extended and provided with a hook at its end substantially as described.

2. A stay-rod holder and fence-wire clasp, comprising a wire bent upon itself to form a loop and two approximately parallel members then having both of its members bent to form with the members of the first loop two U-shaped loops lying one above the other and at right angles to the said first loop and then bent in the reverse direction to form two similar loops, the said members then extending approximately parallel and terminating in oppositely-projecting hooks, substantially as described.

3. The combination with a wire fence and a stay-rod therefor, of a set of spring-clasps, each comprising a wire strand bent upon itself to form a loop and two approximately parallel members, then having both of its members bent to form with the first loop two U-shaped loops lying one above the other and at right angles to the said first loop and then bent in the reverse direction to form similar loops, the members being then extended approximately parallel and each provided at its end with a hook adapted to press on a fence-wire when the said wire and stay-rod are held together by the looped members of the clasp, substantially as described.

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