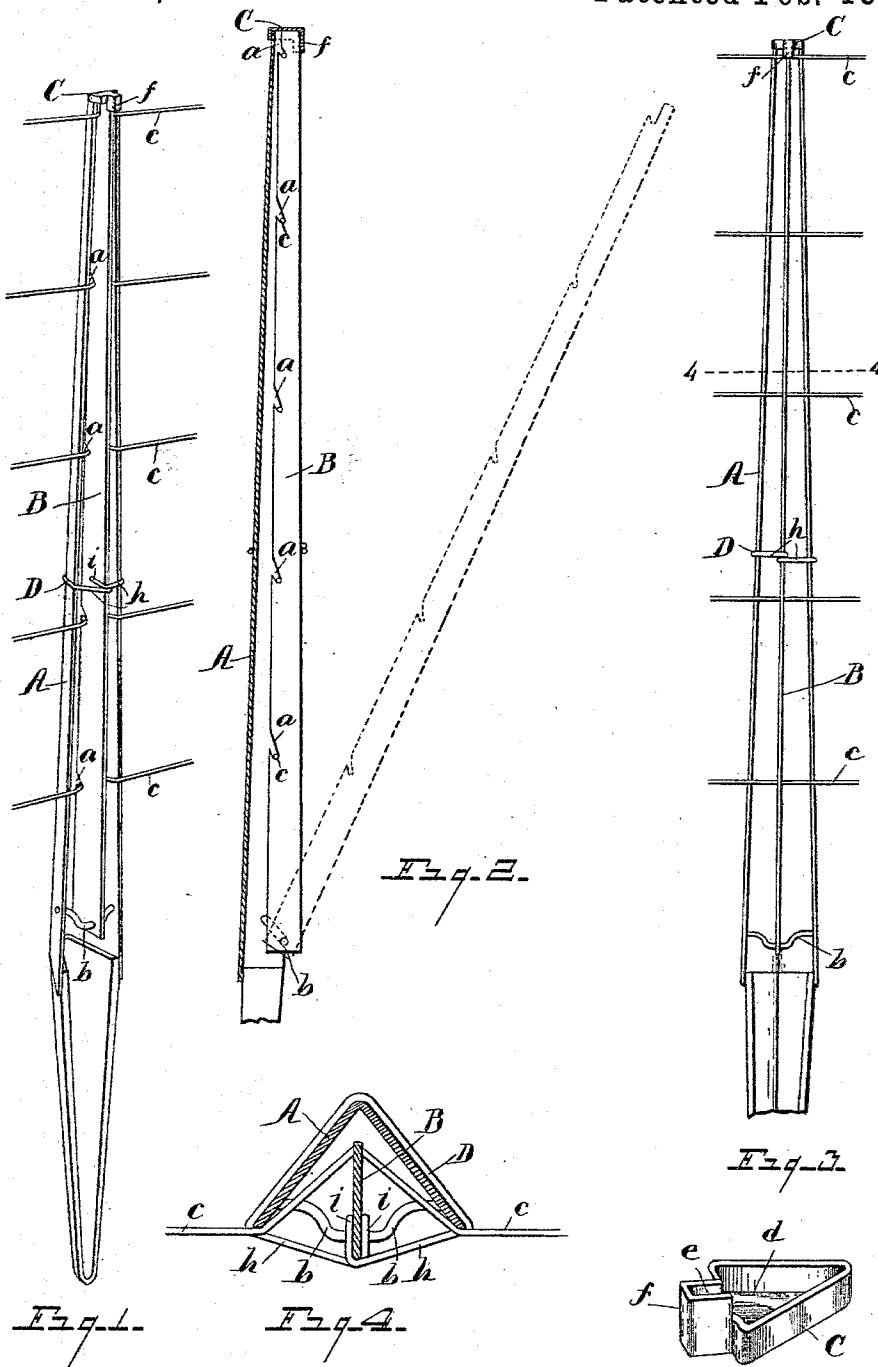


(No Model.)

F. H. KNAPP.
FENCE WIRE FASTENING DEVICE.

No. 514,557.

Patented Feb. 13, 1894.



WITNESSES
E. K. Roemer.
O. B. Baerzger.

Fig. 5.

INVENTOR
Fred H. Knapp.
By R. B. Wheeler & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

FRED H. KNAPP, OF ADRIAN, MICHIGAN.

FENCE-WIRE-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 514,557, dated February 13, 1894.

Application filed February 17, 1893. Serial No. 462,800. (No model.)

To all whom it may concern:

Be it known that I, FRED H. KNAPP, a citizen of the United States, residing at Adrian, in the county of Lenawee, State of Michigan, have invented certain new and useful Improvements in Fence-Wire-Fastening Devices; 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 an improved wire fastening device, for 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 this invention is to provide simple, cheap and effective means for attaching the wire to the post, in such manner as to enable said wires to be readily and firmly secured in place, and at the same time to provide for the expansion and contraction thereof. This object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a fence post provided with my improved fastening device. Fig. 2 is a vertical section through the post and cap, showing the pivotal fastening bar in elevation. Fig. 3 is a rear elevation of Fig. 1. Fig. 4 is an enlarged horizontal section on dotted line 4—4 of Fig. 3. Fig. 5 is an enlarged inverted perspective view of the cap.

Referring to the letters of reference, A designates the post formed of angle-iron V-shaped in cross section, and slightly tapering.

B designates the fastening bar which is made, preferably, of thin metal, and is pivoted at its lower end on a crank-shaft *b* which is journaled in the opposed sides of the post, so that when said bar is in a vertical position, its inner edge will extend into the angle in the rear face of said post, as clearly shown in Figs. 1 and 4. The inner edge of said bar is provided with a series of oblique notches *a* of such distance apart as to receive the strands of wire *c* of the fence, which are supported

therein, and confined between the edge of said bar and rear edges of said post to maintain them in place.

C designates a metal cap, which is provided in its under face with a triangular recess *d* as shown in Fig. 5, that is adapted to receive the upper end of the post, and with a rectangular socket *e* formed by the depending flange *f* of said cap that receives the upper end of the fastening bar, whereby it is firmly secured in place and held from twisting or lateral play.

D designates a fastener made of strong spring wire bent to conform to the shape of the post, and having the inwardly extending end portions *h* provided with the hooks *i* at their end which stand approximately parallel and are adapted to engage opposite sides of the bar B thereby securing said bar and supporting it against lateral play, at its longitudinal center.

By hinging or pivoting the fastening bar B to the base of the post, its upper or free end may be swung outward, as shown by dotted lines in Fig. 2, to a horizontal position while the wires of the fence are being strung, when it is raised to a vertical position, and the wires engaged in the notches *a* in said bar whereby they are maintained the requisite distance apart, and are firmly secured and the desired tension placed thereon by being cramped between said bar and the edges of the diverging sides of the post, as shown in Fig. 4. This manner of fastening the wires, while maintaining them securely in position, permits of the free expansion and contraction thereof under varying temperature, and by means of the crank rod or shaft *b* on which the lower end of the fastening bar is journaled, the application of the proper tension to the wires of the fence is made automatic, for the reason, that, when the parts are in their normal positions, the crank portion of said rod, on which the bar B is journaled, stands at one side of the vertical center through its axes, as shown in Fig. 2; therefore, should the wires expand sufficiently to loosen them, the bar B by virtue of the fact that it supports said wires, will swing downward and inward in the arc of the circle described by the throw of said crank, and, entering farther into the angle between the

sides of said post, take up the slack in said wires. And in case the wires should be drawn to too high a tension by reason of the contraction thereof, the bar B will be forced outward and upward, thus relieving the stress upon said wires, by which means a uniform tension on the wires is at all times maintained, by reason of the leverage force exerted thereon through the action of the crank rod b.

The depending flange *f* on the rear face of the cap C, is designed to prevent the upper end of the bar B from withdrawing from said cap, when said bar is carried downward by the throw of said crank.

While I have shown this improved fastening device attached to a metal angle post, I do not wish to limit myself to this construction, as the device may be attached to posts of any material and construction, without involving a departure from the spirit of my invention. And the same result may be obtained by forming the wire receiving notches in the edge of the post, instead of in the edge of the fastening bar B.

This improved device enables the wires of the fence to be securely fastened without the use of staples, or twisted wire, as commonly used, and renders the fence easily portable, as it may be readily taken down and moved when desired, and the employment of the fastening bar extending the entire length of the post, adds greatly to the strength thereof.

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

1. In a fence-wire fastener, the combination of the post, the crank rod journaled thereto, and the fastening bar journaled on the crank of said rod.

2. In a fence-wire fastener, the combination of the post, the crank-rod journaled thereto, the fastening-bar journaled on the crank of said rod, and adapted to swing from a vertical to a horizontal position.

3. In a fence-wire fastener, the combination

of the post, the crank-rod journaled thereon, the fastening-bar extending the entire length of the post and having notches therein that receive the wires of the fence, said bar being journaled on the crank of said rod which normally stands at an angle to a vertical line through its axis.

4. In a fence-wire fastener, the combination of the angle-post, the fastening bar pivoted on a crank-rod between the sides of said post and adapted to lie in the angle thereof and extend approximately parallel therewith, the fastening device D passing around the post and bar and being detachably secured thereto.

5. In a fence-wire fastener, the combination of the angle post, the crank rod journaled between the sides of said post, the fastening bar journaled on the crank of said rod and adapted to lie in the angle of the post, substantially as specified.

6. In a fence-wire fastener, the combination of the post, the fastening bar, pivoted at its lower end to said post the cap adapted to engage the bar and post and having a depending flange on its rear face, substantially as set forth.

7. In a fence-wire fastener, the combination of the post, the fastening bar extending longitudinally thereof, the fastening device D passing around the post and bar, and having the parallel hooked ends adapted to engage the opposite sides of said bar, substantially as shown.

8. In a fence wire fastener, the combination of the post, the fastening bar extending parallel therewith, the rod upon which the lower end of said bar is pivoted the cap adapted to engage the upper end of the bar and post and retain said bar in contact with the wires of the fence.

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

FRED H. KNAPP.

Witnesses:

E. K. ROEMER,
E. S. WHEELER.