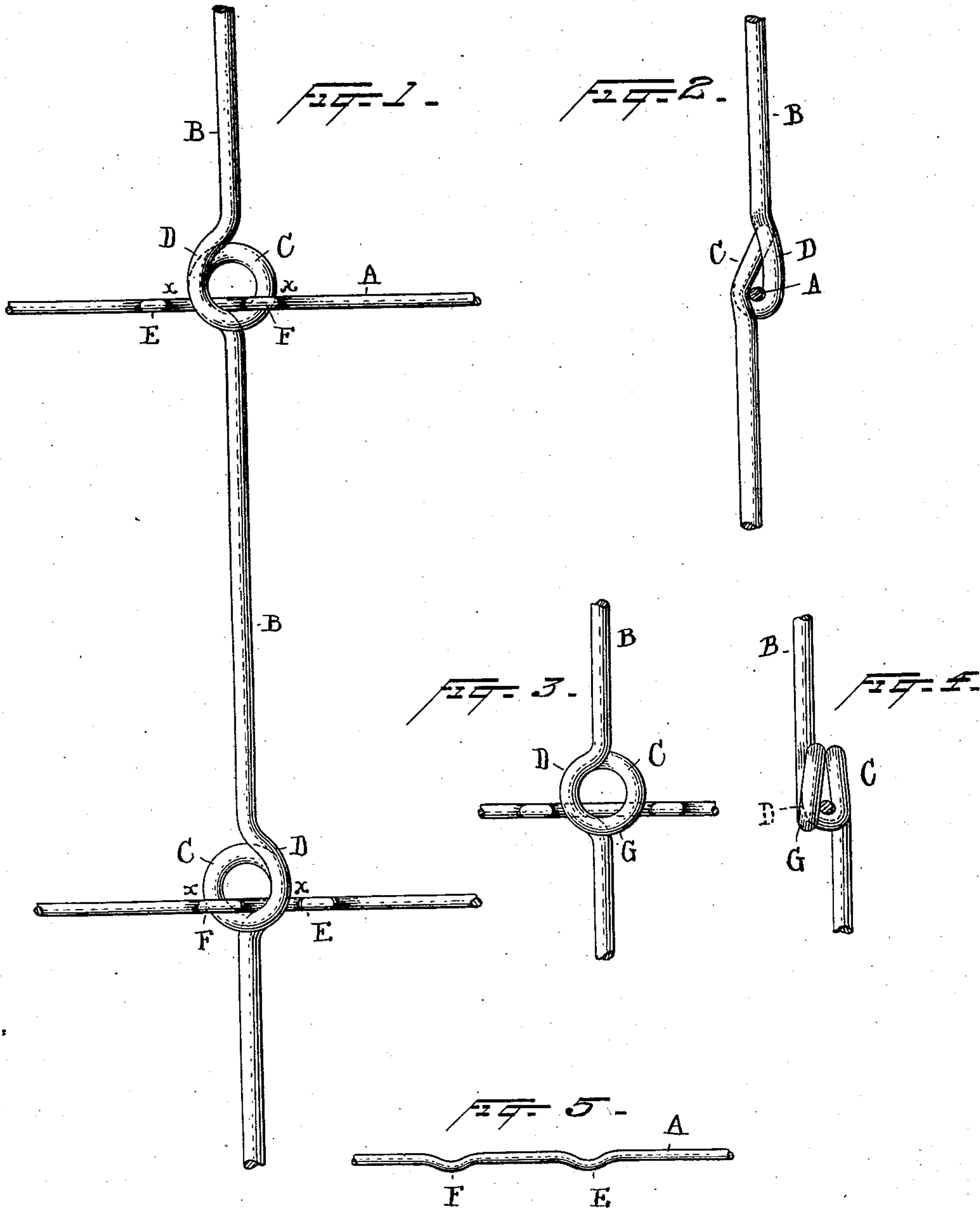


(No Model.)

D. C. SMITH.
FENCE.

No. 567,258.

Patented Sept. 8, 1896.



Witnesses
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John R. Taylor.

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UNITED STATES PATENT OFFICE.

DATUS C. SMITH, OF YONKERS, NEW YORK.

FENCE.

SPECIFICATION forming part of Letters Patent No. 567,258, dated September 8, 1896.

Application filed February 18, 1895. Serial No. 538,733. (No model.)

To all whom it may concern:

Be it known that I, DATUS C. SMITH, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented a certain new and useful Improvement in Fences, of which the following is a specification.

My invention relates to that class of fences in which a number of line-wires are strung on posts set in the ground at suitable distances apart, there being subsequently placed intermediate to the posts a series of wire stays, pickets, or supports.

My invention provides a method of securely locking the stays and line-wires together without the aid of any supplementary devices, such as clamps, bars, or pins.

The object of my invention is to simplify the construction of fences of this class, to reduce the cost of construction, (economy in construction after the necessary strength is obtained being the primary consideration,) to secure a strong and durable fence in which the posts to which the line-wires are strung may be separated at considerable distances apart, owing to the strength added by the intermediate wire stays, and which will have a neat and ornamental appearance.

I accomplish my invention, first, by providing a stay which, because of its peculiarities of construction, tends to prevent the turning of the stay itself by any lateral stress or force, and, second, by crimping the line-wire at suitable points relatively to the lock on the stay and likewise bending the members of the stay to secure the line-wire and stay from any relative movement.

The lock on the stay which I have designed is composed, essentially, of a loop formed in the stay, one member of the loop being directly or almost directly opposite a portion of another member of the loop, so that the line-wire will be held between the two opposing surfaces, and the stem of one member of the loop will be in such a position, when the members are brought together, as preferably to slightly overlap the other member of the loop and thereby secure a top lock, as to vertical motion, as well as the side clamping-lock, as to lateral motion, afforded by the two mem-

bers opposed as stated. By having one member overlap the other greater rigidity is secured in the stay. At the same time, and in connection with the lock just described, I preferably crimp the line-wire in two places, so that one crimp lies partly within and partly without the loop-lock, and the other crimp is wholly without the loop-lock and on the opposite side from the first-mentioned crimp.

In the accompanying drawings, forming part of this specification, Figure 1 is a face view of one form of my improved stay, showing the alternate locking-loops turned in opposite directions. Fig. 2 is an edge view of part of the same, showing the members in the locking position. Figs. 3 and 4 show a modification of the same; and Fig. 5 is a top view of the line-wire, showing the crimps therein.

A in the drawings represents the line-wire, and B is the stay. The loop which forms the lock is preferably formed circular in shape for facility in bending, and essentially comprises a member C and a member D.

The member C, as shown, is circular in form, and the member D is a continuation thereof, being bent in a circle coincident therewith save for a short distance at the top, where it is so bent as to permit of slightly overlapping the same. By this method of bending the members, as shown in the drawings, the member D is brought up directly opposite one portion of the member C, so that when the line-wire is dropped into place it is, after the clamping operation, bound between the two members directly opposing one another. When the line-wire is in place and thus bound, it is further prevented from leaving the locking-loop by bending the members of the locking-loop together, as shown in Fig. 2, where it will be seen that the member C is overlapped by the member D. The top lock which is thus formed, as stated, of course prevents the line-wire from leaving its place in the loop, but the arrangement of the members directly opposite one another accomplishes a much-desired purpose in that it tends to prevent the turning of the stay upon its axis, such turning being only possible in this character of stay by spreading the

members C and D apart or by crowding them past one another either toward the center of the loop or from it.

To further secure the desired rigidity and strength in the fence, the line-wire is provided with two crimps, one, E, which lies wholly without the locking-loop, and the other, F, which lies partly without and partly within the locking-loop. By this character of crimp at the points $x\ x$ there are two humps presented in the line-wire, which effectively prevent longitudinal movement. The crimp F, it will be observed, forms a recess into which the member C falls during the crimping operation, and thereby it is possible to make a closer lock between the members C and D, and, in fact, all of the parts of the lock and line-wire.

It may be stated at this point that the crimping and clamping tool may be so formed as to both force the members of the lock together and at the same time crimp the line-wire, there being but one operation required to make the entire lock.

As is seen in Fig. 1, the alternate locks are turned in opposite directions. The object of this is to secure a counterbalancing effect, whereby any tendency of the stay to turn on its axis is further offset by the arrangement of the locks, which present on opposite sides points of resistance.

In Figs. 3 and 4 the lock which is shown, while it contains the essential of my invention, uses more metal than is desirable, and for that reason I deem the form shown in Fig. 1 preferable. In Fig. 3 the member D is duplicated at the other side of the lock, as shown at G, and thereby there is secured to each side of the line-wire a direct clamp between the members of the loop and the line-wire and a tendency to turn is wholly pre-

vented. The form of this second loop G is not essential, provided it is carried below the line-wire.

I claim—

1. A fence-stay having a lock thereon, comprising a loop of substantially one and one-half turns of like diameter formed in said stay, and a line-wire engaging therewith between the turns of said loop, substantially as set forth.

2. A fence-stay having a lock formed of a loop of substantially one and one-half turns of like diameter between which the line-wire is clamped, and a top lock formed by bending one turn somewhat past and over the other, substantially as set forth.

3. A fence comprising a stay having a lock formed of a loop of substantially one and one-half turns of like diameter, one turn of which slightly overlaps the other, whereby a top lock is formed, and a line-wire engaging therewith, the said top lock preventing the line-wire from leaving its place, substantially as set forth.

4. The combination in a fence, of a line-wire, a stay therefor, a lock formed of a loop of substantially one and one-half turns of like diameter formed in the stay, and crimps in the line-wire, substantially as set forth.

5. The combination in a fence of a series of line-wires, a stay therefor having a series of locks forming part of the stay, one lock for each line-wire, said locks being alternately turned in reverse directions, substantially as set forth.

This specification signed and witnessed this 16th day of February, 1895.

DATUS C. SMITH.

Witnesses:

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