

(No Model.)

W. CLEMENT.
WIRE FENCE.

No. 543,610.

Patented July 30, 1895.

Fig. 1.

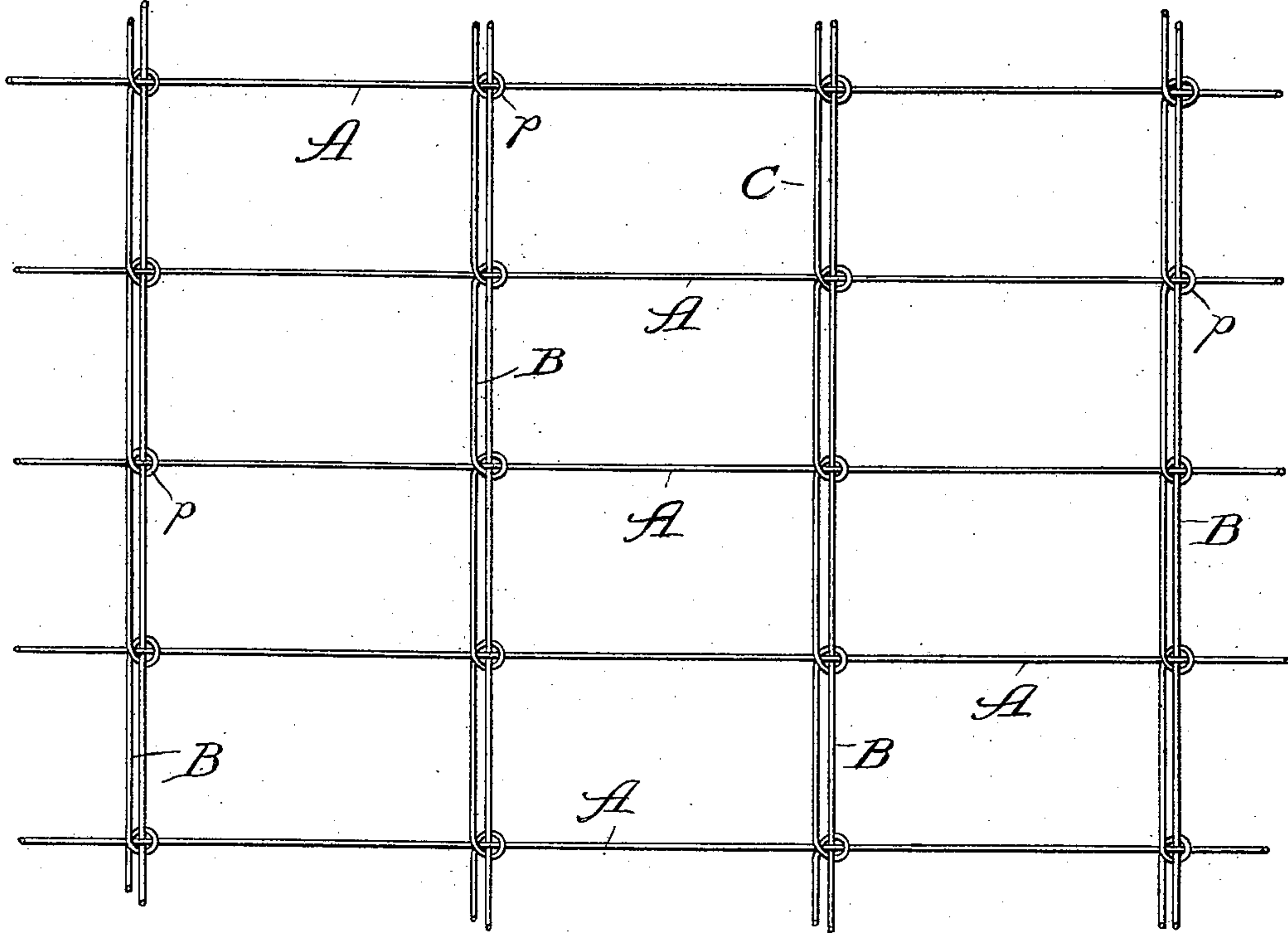
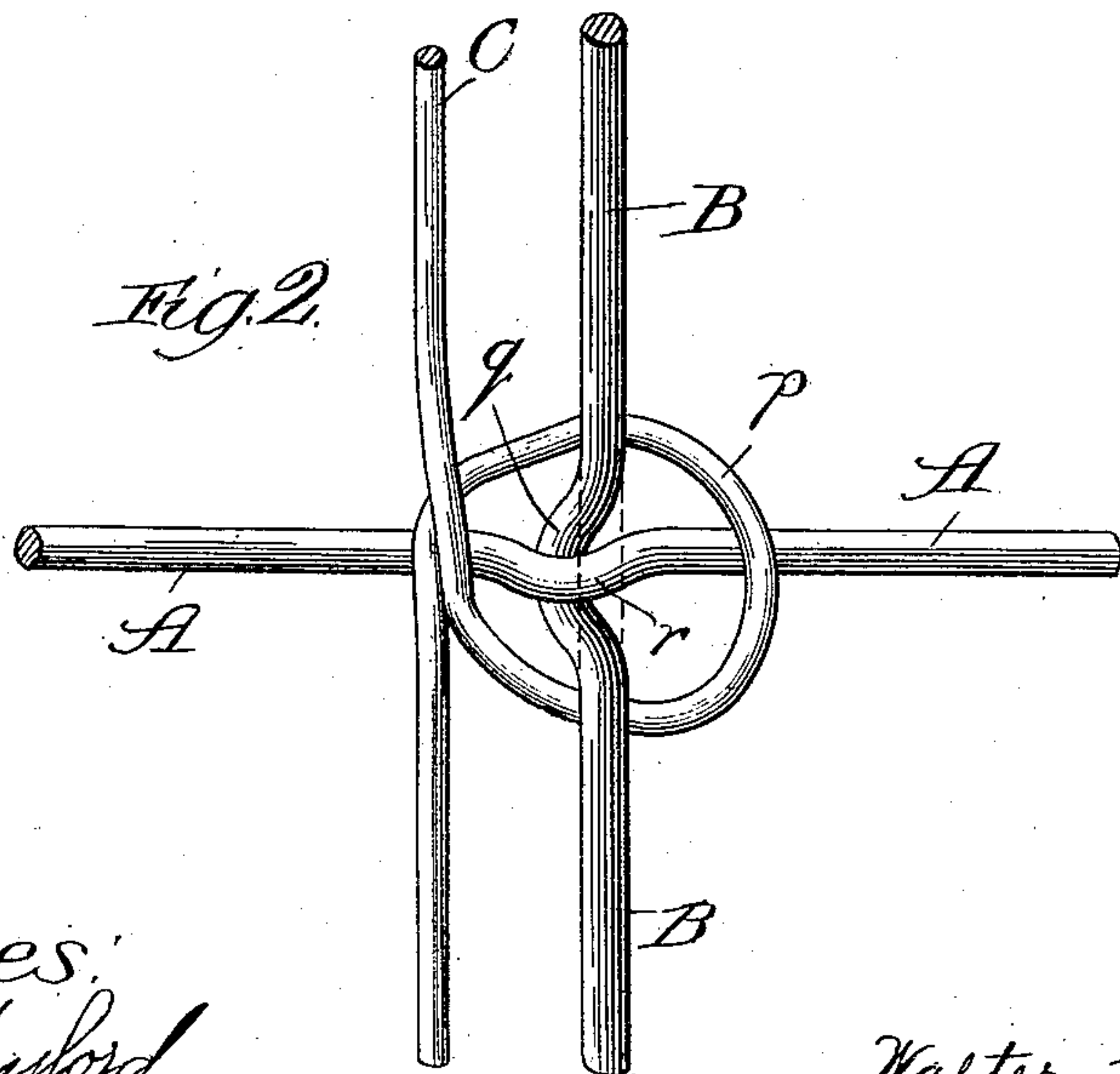


Fig. 2.



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WALTER CLEMENT, OF ADRIAN, MICHIGAN.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 543,610, dated July 30, 1895.

Application filed June 6, 1894. Serial No. 513,681. (No model.)

To all whom it may concern:

Be it known that I, WALTER CLEMENT, a citizen of the United States, residing at Adrian, in the county of Lenawee and State of Michigan, have invented a new and useful Improvement in Wire Fences, of which the following is a specification.

My invention relates to an improvement in the class of wire fence formed with horizontal wires and vertical stiff rods or stay-bars or "cross-bars," as they are termed, provided at desired intervals, the horizontal wires and cross-bars being held together where they cross each other by "locks" in the form of independent rings or washers, or of slotted metal plates, through which the wires are bent to form eyes therein protruding through the locks to admit and surround the cross-bars passed through them. There are objections to the construction of wire fence thus described, principal among which are the following: It requires to be made by hand, which renders it costly to manufacture. The locks referred to do not prevent slipping of the horizontal wires on the cross-bars, since dependence must be had entirely or mainly on the friction of the rings on the cross-bars to prevent the horizontal wires from being pressed together, and the fence is not desirably elastic.

The principal object of my improvement is to provide a construction of wire fence whereby the enumerated objections shall be overcome by enabling it to be made entirely, or almost entirely, by machinery and otherwise cheapening the manufacture, by preventing the horizontal wires from slipping on the cross-bars, and by rendering the fence highly elastic and therefore the more durable.

To produce my improved article of wire fence I provide the horizontal wires at intervals with stiff cross-bars and fasten the two together by wires crossing the horizontal wires and bent to form loops at the junctions of the horizontal wires and cross-bars, and at each point of crossing the loop performs its fastening function by being caused to bear against one surface of the horizontal wire at both sides of the cross-bar and against the opposite surface of the cross-bar at both sides of the horizontal wire.

A section of wire fence involving my im-

proved construction is shown in Figure 1 of the accompanying drawings by a view in front elevation, and Fig. 2 presents an enlarged perspective view for clearly illustrating my improved looped-wire means for fastening together the horizontal wire and cross-bar where they cross.

A A are the horizontal wires, which should be bent or crimped to form offsets r at the intervals where cross-bars B are to be applied. These bars may be provided with offsets q , coincident with, but contrary to, those on the wires A to engage them, as represented. The fastening of each bar B is effected by means of a wire C, crossing the wires A adjacent to the bar and bent, where it crosses each horizontal wire, into a loop p to bear against the same surface of the wire A at opposite sides of the bar B and against the contrary surface of the bar at opposite sides of the horizontal wire. The loops p thus bind or lock the horizontal wires and cross-bars elastically or yieldingly together, particularly when the wires C are steel, as they preferably are, and the loops for each bar B being all formed on a single length of the cross-wire they are tied together or form connected loop-locks and effectually prevent slipping of the wires A on the cross-bars.

As will readily be seen, a fence thus constructed being formed entirely of wire is much cheaper to manufacture than one of the class referred to employing metal washers or rings. It will also be readily apparent that it is quite feasible to produce my improved construction by machinery, while this is not the case with regard to that referred to as being improved on by my invention.

My improved wire fence may be formed, as one way, by pressing the horizontal wires through the loops p , previously made in the loop-bars, thereby extending offsets p or eyes through the loops, and thereupon inserting a cross-bar B through each aligning series of the protruding offsets or eyes to complete the structure. Another way would be to stretch the horizontal wires A. Then place the cross-bars at desired intervals against them and string the cross or loop wire C and wind it to form the loop or lock at each point of crossing of a cross-bar and horizontal wire about the two.

Instead of providing the offsets in both the parts A and B the former may be the only part provided therewith when the latter would remain straight, as indicated by the dotted representation in Fig. 2, or the crimps may be provided only in the bars B.

The terms "horizontal" and "vertical" herein employed with regard to the wires A and bars B are merely intended to be relative, and these positions may be interchanged and the loop-wire may be horizontal, as would be the preferred construction for panel fencing, gates, and the like.

The shape of loop *p* illustrated is the one preferred, though this may be variously modified without departing from the spirit of my invention, provided a number of the connected loops be provided in a cross-wire C.

What I claim as new, and desire to secure by Letters Patent, is—

1. Wire-fence comprising horizontal wires and cross-bars elastically fastened together at their intersections, the fastening means comprising wires extending alongside the cross-bars across the horizontal wires and containing loop-locks formed by bending each fastening-wire at intervals about said intersections and crossing it upon itself near

the initial points of bending, the wire of each loop bearing laterally against the opposite sides of the two intersecting members respectively above and below the horizontal wire and to the right and left sides of the cross-bar, and the lengths in the fastening-wire between loops forming a substantially continuous line more or less parallel with the adjacent cross-bar, substantially as described.

2. Wire-fence comprising horizontal wires A provided at intervals with offsets *r*, bars B crossing said wires at the offsets and means fastening the two together at their intersections comprising wires C containing loop-locks *p* extended about the horizontal wires and cross-bars to bear respectively against their opposite lateral surfaces, said loop-locks being formed in each wire C by bending it at intervals and crossing it upon itself near the initial points of bending, the lengths of the wire between loops forming a substantially continuous line more or less parallel with and spaced from the adjacent cross-bar, substantially as described.

WALTER CLEMENT.

In presence of—

GEO. W. AYERS,
J. C. ROWLEY.