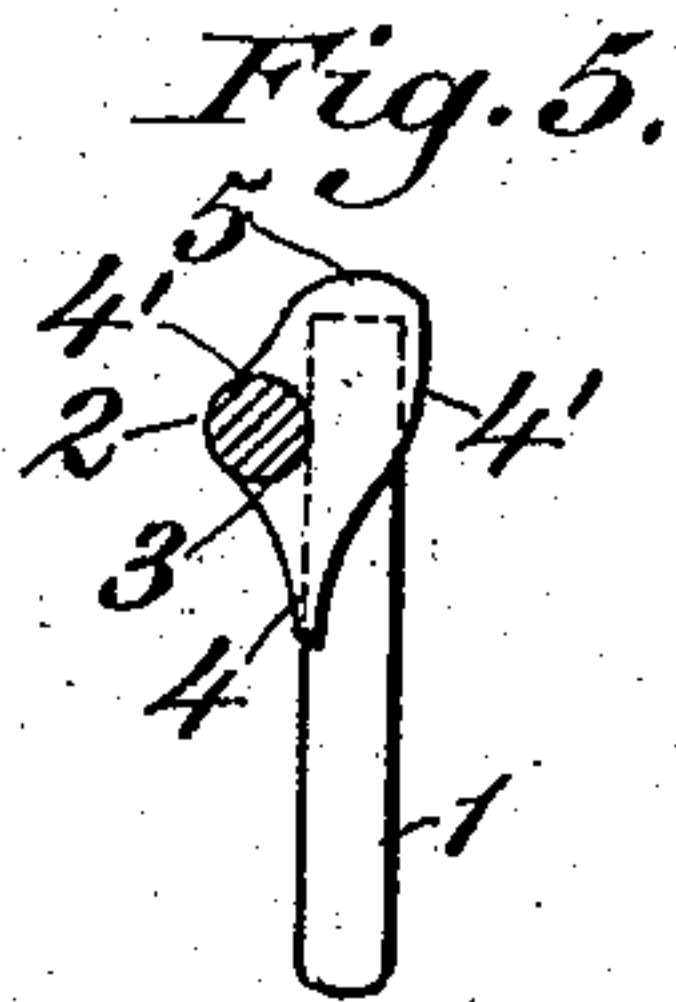
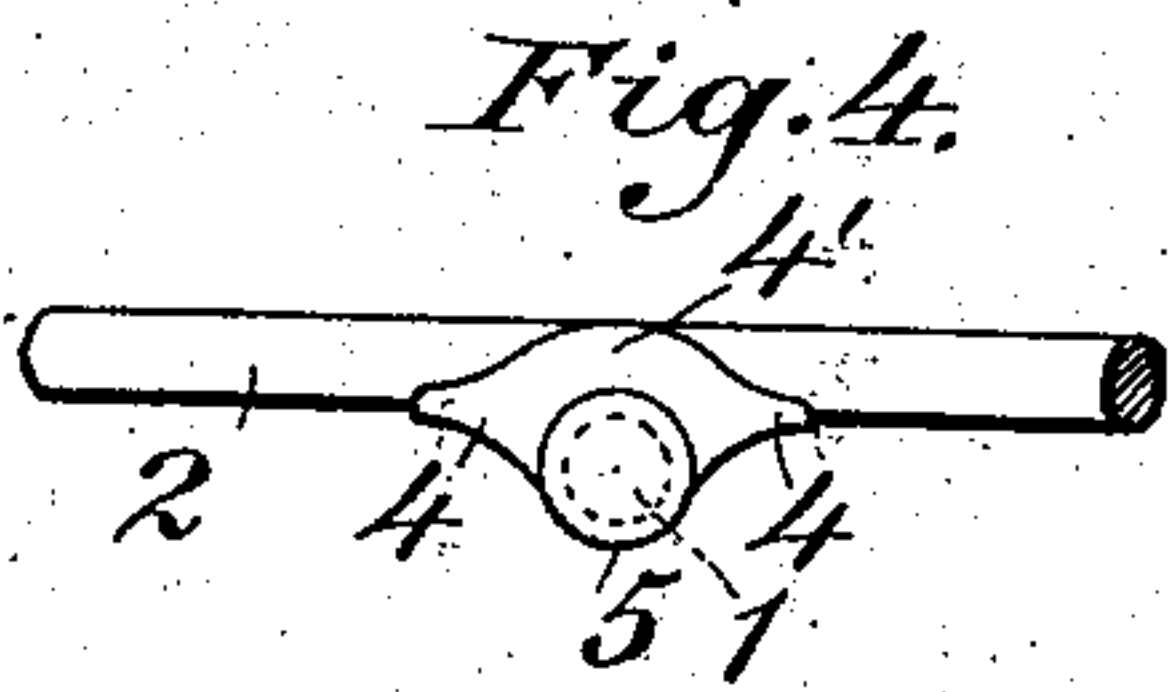
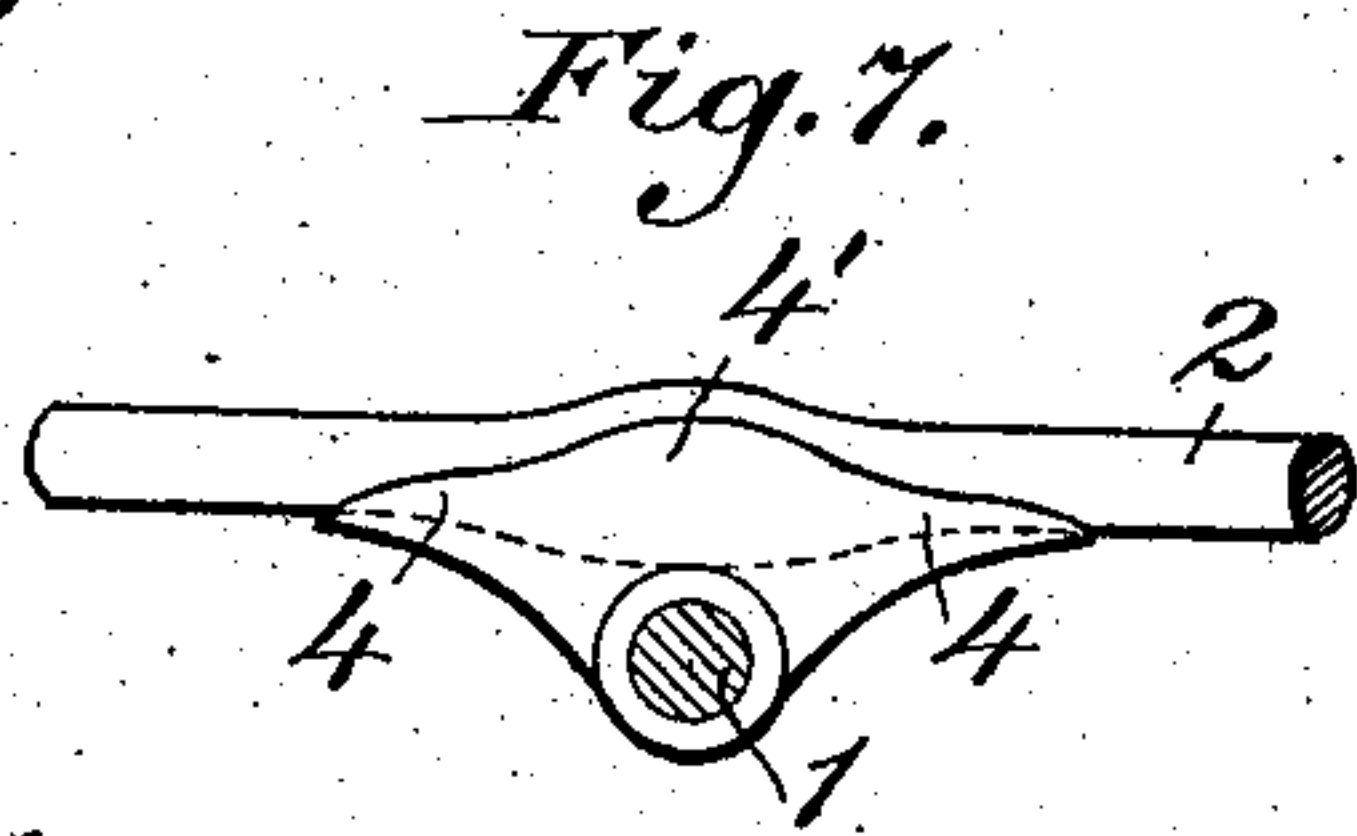
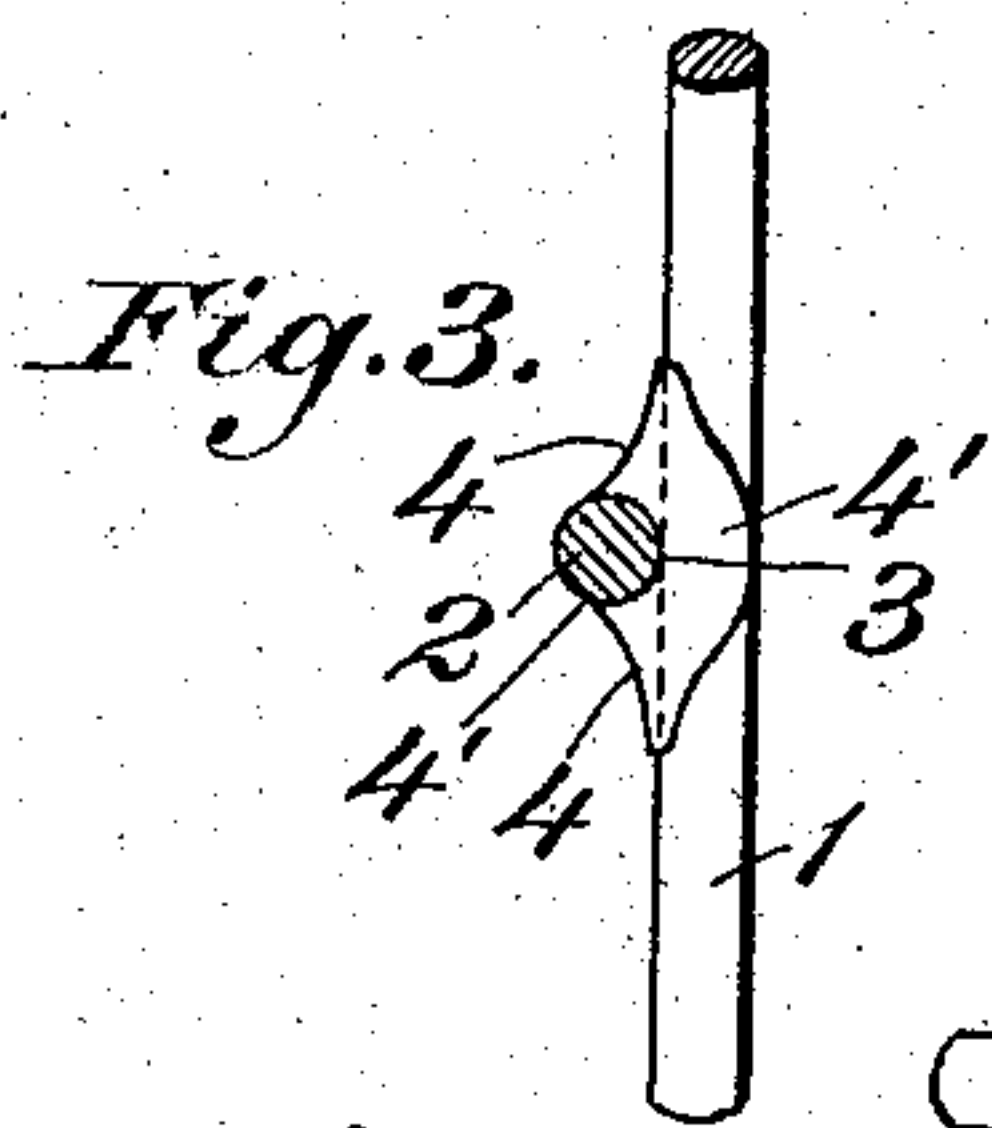
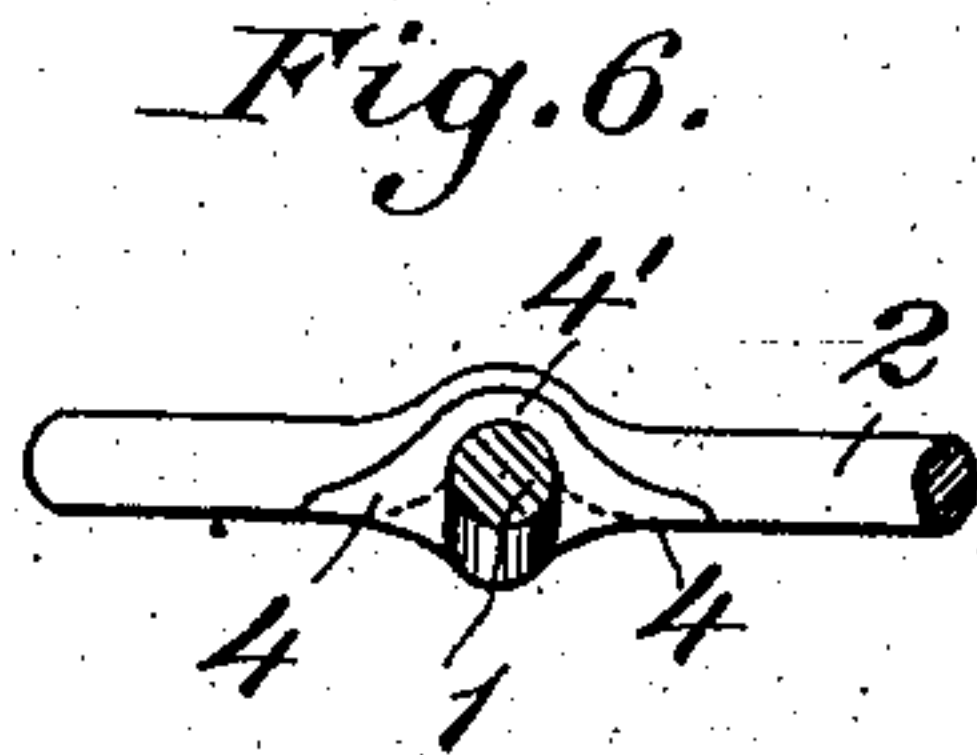
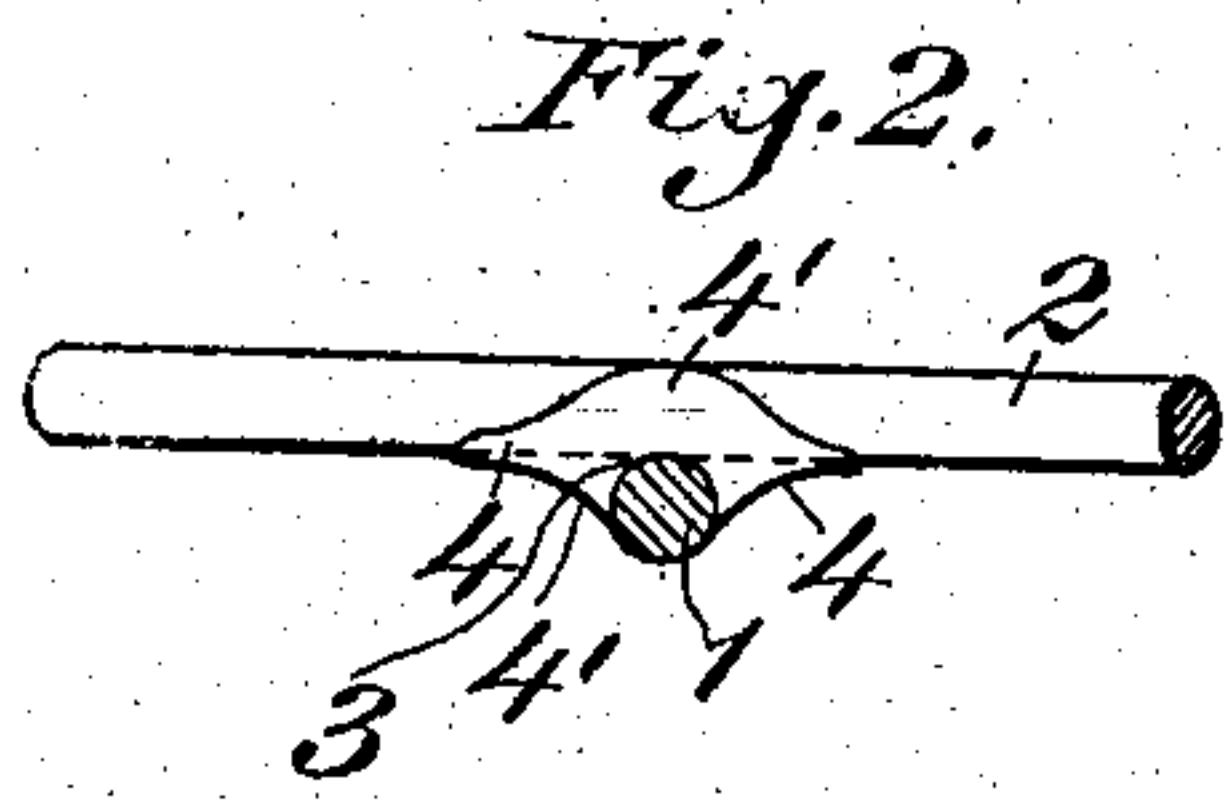
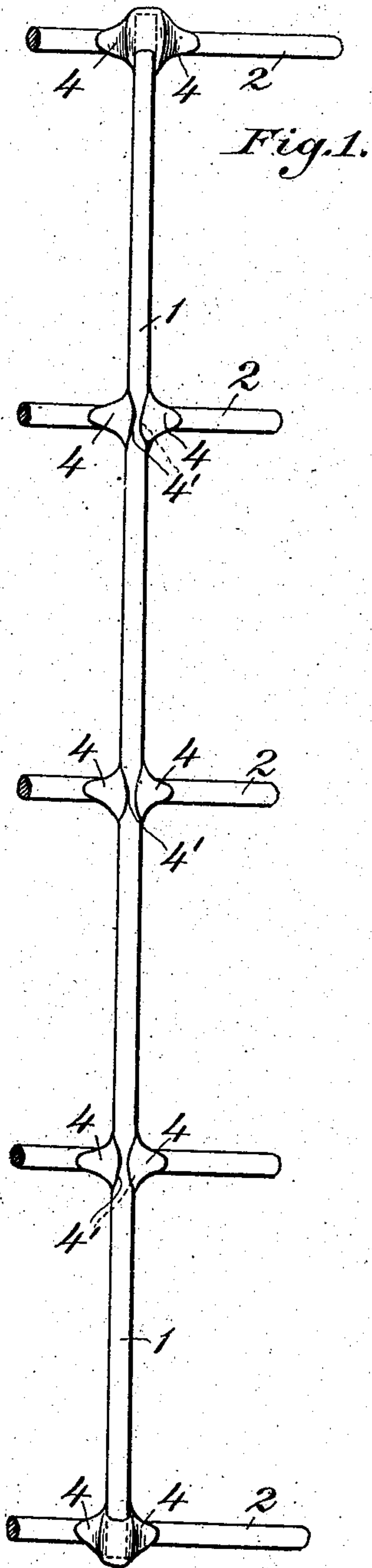


No. 827,365.

PATENTED JULY 31, 1906.

J. HARRIS.
WIRE FENCE.
APPLICATION FILED APR. 11, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

JONATHAN HARRIS, OF CLEVELAND, OHIO.

WIRE FENCE.

No. 827,365.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed April 11, 1905. Serial No. 254,909.

To all whom it may concern:

Be it known that I, JONATHAN HARRIS, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Wire Fences, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of the invention are to provide a new and improved construction of wire fencing wherein the crossing wires are directly secured together by solder or brazing or heated metal which becomes inseparable therefrom without the use of separate metal clips or ties, as has heretofore been the custom, and without bending or coiling one wire about another, which has the disadvantage of making more or less brittle joints.

A further object is to secure the wire crossings by means of a solid metal joint, which while employing the minimum amount of metal will provide the maximum amount of strength, and the fastening metal will be so disposed as to afford the greatest resistance to the bending strains brought to bear upon the fence in all directions.

A further object is to provide a more efficient form of joint than that disclosed in Letters Patent of the United States granted to me on September 18, 1894, bearing No. 526,311, or Design Letters Patent granted to me June 9, 1896, bearing Nos. 25,614 and 25,615, in which is disclosed a ball of metal cast in a mold about the wire crossings, the objectionable feature of which lies in the fact that the metal ball is not at all intimately attached to the wires, but is liable to shrink away therefrom, so that while a good joint is formed it will be loosely attached, and hence not as strong as if directly soldered to the wires.

The invention consists in the arrangement of the metal to bridge the angles formed between the crossing wires, where the strain is heaviest, and in the massing of the metal about the cut ends of the wire at the top and bottom of the fence, where rust is liable to form and disintegration to commence.

The invention further consists in the combination and arrangement of parts, as herein-after described, shown in the accompanying drawings, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is

an elevation of a "stay-wire" of a wire fence, showing portions of the line-wires attached thereto. Fig. 2 is a plan view of a single crossing. Fig. 3 is an end view of the same. Fig. 4 is a plan view of the joint of the stay-wire with the upper line-wire, and Fig. 5 is an end view thereof. Fig. 6 shows crimped wires, and Fig. 7 shows thickened wires at contact-points.

In the views, 1 is the stay or vertical wire. 2 is the line-wire.

The solder or other metal is applied to the previously-prepared surfaces of the closely-adjacent crossing wires and is built up longitudinally on each side of the engaging part, forming a heavy bridge, filling the angle between the wires and extending to some distance on either side.

In the figures the engaging portions of the wires are directly soldered or brazed together at 3, and the solder or brass extends at 4 on each side, partly encircling each wire at 4', so as to give as great an area of attachment as possible. The parts thus become practically integral, and the joints are as strong as one piece of metal. In this manner great leverage is obtained from the wing metal extensions, so that strains across the joint in any direction are met and resisted.

The cut ends of the stay-wires at top and bottom are covered with a cap of metal 5, which is bridged to the wires on all sides, thus forming a perfectly smooth and ornamental finish, such that it will not injure stock and will greatly increase the strength and beauty of the fence.

This fence has a somewhat similar appearance to the electrically-welded fence; but there are no points of real similarity, inasmuch as welding reduces the amount of metal at the contact-point, while in this invention a large amount of metal is added and disposed to reinforce and enlarge the joint on all sides.

The metal can be heated to the soldering or brazing temperature by any desirable method, such as electricity or gas. The wires when the soldering or brazing is being performed must also be heated, so that they perceptibly soften, and at this moment the parts adjacent to the contacting points of either wire can be also greatly enlarged by forcing the opposite portions of each wire together from either side of the contacting points, thus thickening the wires and joints in addition to the added solder or brass, as shown in Fig. 7.

In Fig. 6 the crossing wires are shown crimped at the points of crossing, thus putting the fence all upon one plane and serving to some extent to obtain greater rigidity of the joints.

Having described the invention, what I claim as new, and desire to secure by Letters Patent, is—

A wire fence comprising spaced vertical and horizontal crossing wires, and means for securing said crossing wires together consist-

ing of molten metal extending upon the crossing wires on either side of their contacting points, said molten metal also forming crowns incasing the cut extremities of the vertical wires, substantially as described.

In testimony whereof I hereunto set my hand this 3d day of April, 1905.

JONATHAN HARRIS.

Witnesses:

WM. M. MONROE,
GEO. S. COLB.