No. 819,968. PATENTED MAY 8, 1906.

M. S. ANDERSON.

LOCK FOR CROSS WIRES.

APPLICATION FILED AUG. 11, 1905.

Fig. 1.

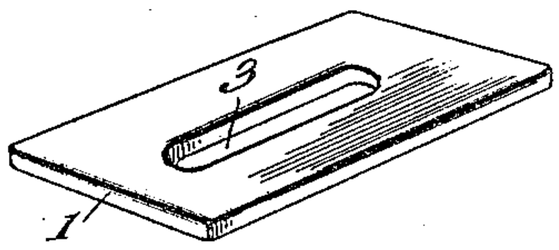


Fig. 2.

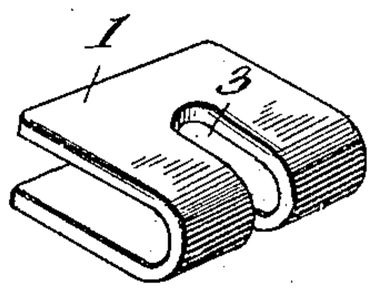


Fig. 3.

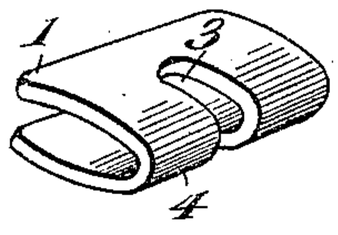


Fig. 4.

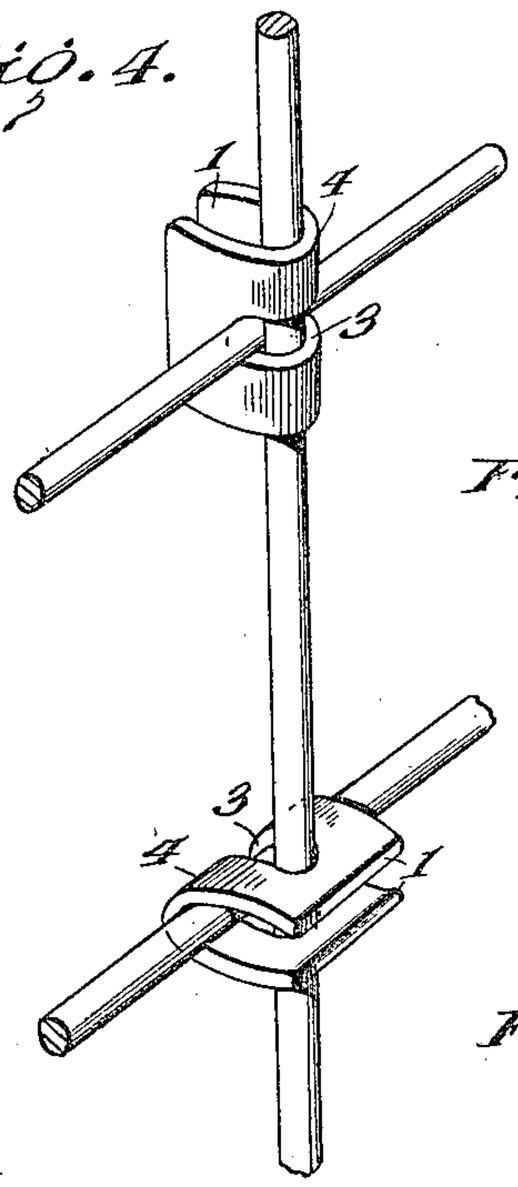


Fig. 5.

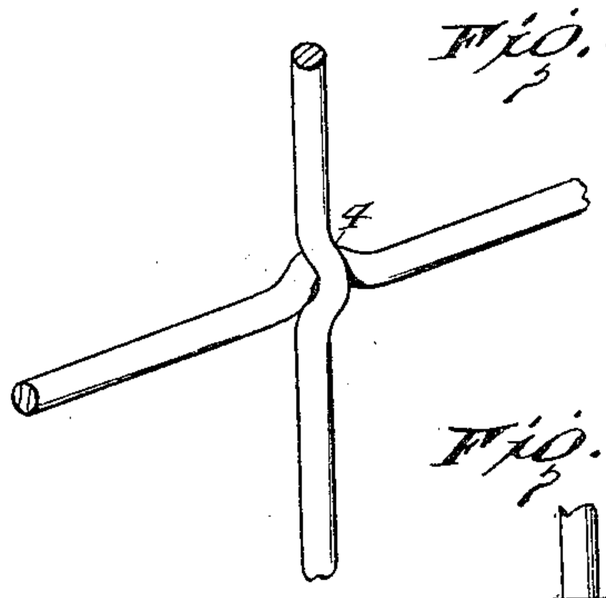


Fig. 6.

Fig. 7.

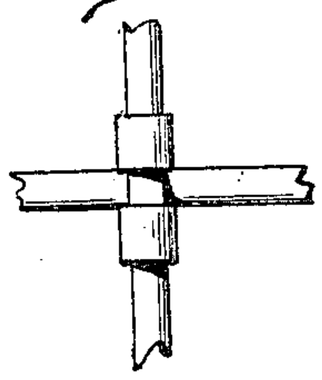


Fig. 9.

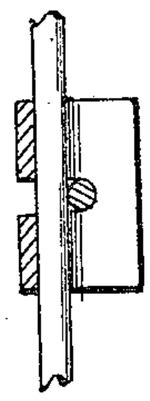


Fig. 10.

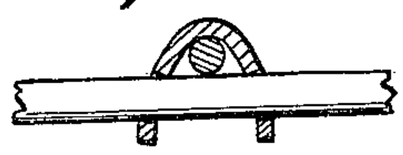
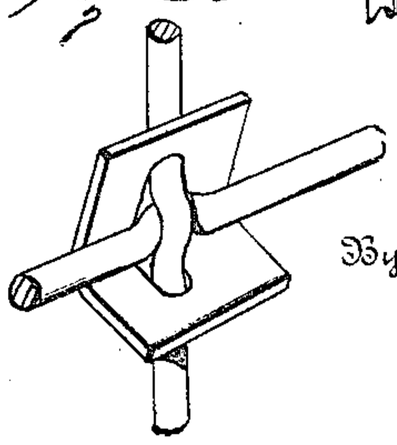


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

MILTON S. ANDERSON, OF MANISTEE, MICHIGAN.

LOCK FOR CROSS-WIRES.

No. 819,968. Specification of Letters Patent. Patented May 8, 1906.

Application filed August 11, 1905. Serial No. 273,791.

To all whom it may concern:

Be it known that I, MILTON S. ANDERSON, a citizen of the United States, residing at Manistee, in the county of Manistee and State of Michigan, have invented certain new and useful Improvements in Locks for Cross-Wires, of which the following is a specification.

My invention relates to a metal tie or lock, and has for its object the expedient and efficient locking of cross wires or rods in the manufacture of screens, gratings, nettings, &c., and in the construction of wire fencing by hand or by automatic machinery. While the utility of such a device is particularly adapted to the construction of wire fencing where a secure fastening is desired for connecting the lateral wires with the cross-stays, such stays being preferably of heavier wire than the laterals and made of spring-steel such as would not permit of being coiled around the laterals, it is also desired to be understood that the tie herein described may be used in any manufacture where a practical union of cross wires or rods is required.

The principal object of my invention is to provide a simple, inexpensive, and expedient wire-fence construction by hand without the aid of skilled mechanics or of mechanical appliances other than a specially-constructed locker and the ordinary fencing-tools. I am aware that in some similar methods the locking is effected by crimping or bending the wires or by the use of a tool to indent a portion of the metal of the lock into the longitudinal wires. It is obvious that such crimping, bending, or indenting would in a greater or less degree tend to weaken the metal, scale the galvanizing, and induce rust at the union. It has been my object to overcome this difficulty, and I would therefore have it understood that I do not claim such construction, but that the lock as herein described holds the wires firmly against displacement, owing to the frictional contact of the parts and the tenacity of the metal. However, in the use of soft-wire laterals it would seem best to use a different means for locking, whereby the stay and laterals are slightly bent, each wire assuming the shape impressed by the other, such bending being effected in the process of locking and requiring no preparatory crimping before applying the lock.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a plan view of the clip as stamped out of sheet metal and before bending. Fig. 2 is a perspective view of the clip, showing it as bent and ready for use. Fig. 3 is a perspective view of the clip after it has been locked, so as to clamp the wires. Fig. 4 is a perspective view of a portion of a wire fence, showing my clip as applied so that the longitudinal slot therein is both in a horizontal and a vertical position. Fig. 5 is a perspective view showing the manner in which wires of soft metal are bent. Fig. 6 is a sectional view showing the manner of bending the clip when employed with soft wire. Fig. 7 is a front view of two cross-wires locked by my device. Fig. 8 is a perspective view showing the means for locking soft wires. Fig. 9 is a sectional view showing the manner in which the wires are passed through the clip. Fig. 10 is a sectional view at right angles to the plane on which Fig. 9 was taken.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numeral 1 designates the body of the clip, which is preferably rectangular in shape and is provided with a longitudinal slot 3 of a sufficient length to fit around the intersecting wires. These clips can be very readily stamped out of sheet metal and are then bent upon an axis perpendicular to the longitudinal slot 3, so that they are approximately U-shaped, as seen in Fig. 2. In employing the device one of the wires is placed in the slot 3, while the opposite wire is slipped between the arms of the U-shaped clip, so as to prevent the withdrawal of the first wire. The base of the clip is then pressed inward throughout its entire length, as seen at 4 in Fig. 3. This arches the sides of the clip and securely locks the wires in position. By thus pressing the base of the clips inward I am enabled to clamp the wires in position without in any manner weakening same or injuring the galvanizing.

In constructing fences of soft wire the style of locking shown in Figs. 6 and 8 is recommended, because it is evident that such material would not offer sufficient resistance to be held firmly by friction alone. In this manner of locking a specially-constructed

locker is also used, by means of which the parallel sides of the clip are forced outwardly in opposite directions, thereby causing them to tend toward a straight line. The pressure is continued until the cross-wires are curved by their contact with each other and the lock, as shown, thus insuring them against displacement.

My invention is intended to facilitate the construction of wire fences by hand where the longitudinal wires, stays, and locks are shipped knocked down. The longitudinal wires are first stretched, spaced, and stapled to the posts. The locks are then fitted around the longitudinal wires and the stays passed through them. By pressing the bases of the U-shaped clips inward and arching the sides thereof, as has heretofore been described, the stays and longitudinal wires are securely held together, or should the wires be made of soft metal the parallel sides of the clip are bent outwardly in opposite directions and the wires bent upon themselves and securely clamped. It will be readily understood that this clip has a very wide range of usefulness, since it is adapted to be locked by either of the before-mentioned means and is therefore equally applicable for wires of both hard and soft metal and also for repairing old fences or building new barbed-wire fences where stays are employed.

Having thus described the invention, what is claimed as new is—

As a new article of manufacture, wire-fence construction embodying intersecting cross-wires, and a metal clip for connecting said wires, said clip consisting of a piece of sheet metal provided with a longitudinal slot in which one of the cross-wires is received, the plate being bent upon itself to form sides between which the other of the cross-wires is received, said wires being in contact with one another, the sides of the clip aforesaid being curved in the length thereof whereby the same are caused to engage the wire in the slot thereof with a positive frictional or biting action, the engaging action of said clip with respect to the aforesaid wire being such as to hold the intersecting wires also in positive frictional contact with one another.

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

MILTON S. ANDERSON. [L. S.]

Witnesses:

A. J. PIOTROWSKI,

E. S. FOSTER.