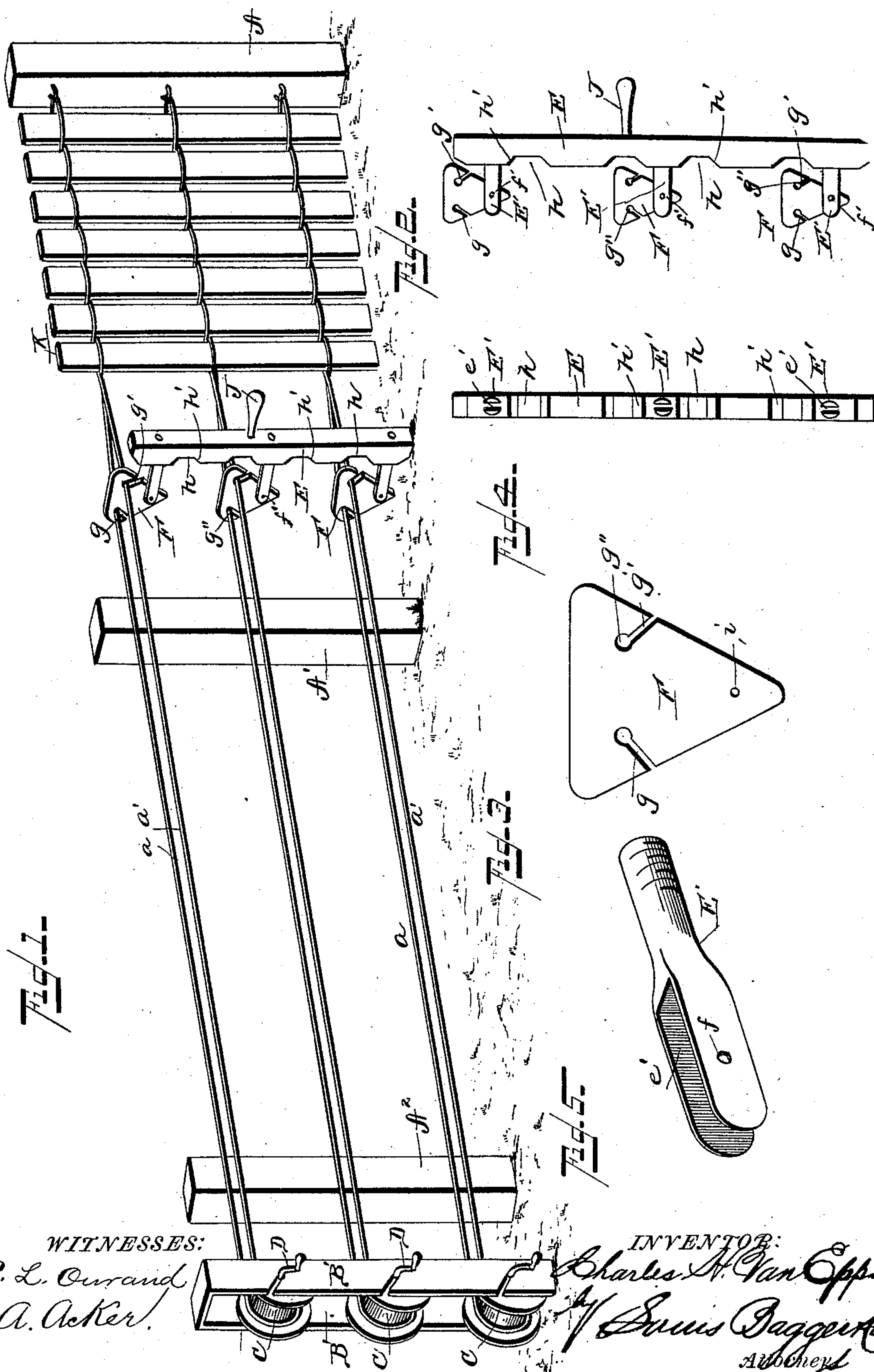


(No Model.)

C. H. VAN EPPS.  
FENCE WRENCH.

No. 424,912.

Patented Apr. 1, 1890.



WITNESSES:  
F. L. Ourand  
W. A. Acker.

*INVENTOR:*

INVENTOR  
Charles A. Van Cope  
By Edwin Daggert  
Attorneys



# UNITED STATES PATENT OFFICE.

CHARLES HANSON VAN EPPS, OF SCOTT, INDIANA.

## FENCE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 424,912, dated April 1, 1890.

Application filed August 27, 1889. Serial No. 322,066. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES HANSON VAN EPPS, a citizen of the United States, and a resident of Scott, in the county of La Grange and State of Indiana, have invented certain new and useful Improvements in Fence-Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to certain new and useful improvements in wrenches or crossers for the crossing of the wires used in the building of picket or paling fences; and it consists of the peculiar construction and arrangement of parts, as hereinafter more fully set forth in the drawings, and described in the specification.

Referring to the drawings forming a part of this specification, Figure 1 is a perspective view showing a picket-fence partially built, showing my improved wrench or crosser in position for operation and the wire-carriage situated to one side of the fence-post. Fig. 2 is a side view in elevation of my improved wrench or crosser. Fig. 3 is a view in detail showing one of my improved triangular wrench-plates; Fig. 4, a front view of the device with the wrench-plates removed, and Fig. 5 a detail view of one of the bifurcated bolts or arms for securing the wrench-plates.

Similar letters of reference are used to denote corresponding parts throughout the entire specification and several views of the drawings.

The letters A A' A<sup>2</sup> are used to represent a series of fence-posts set in the ground at suitable intervals, in any well-known manner, the posts A' A<sup>2</sup> being set slightly back of the post A. To the end post A, I securely fasten the free ends of the wires *a a'*, which wires are tightly stretched between the fence-posts and allowed to run along the face of the posts A' A<sup>2</sup>, and are secured around the wire-reels pivoted in the frame of the wire-carriage situated to one side of the post A<sup>2</sup>, usually in sets of two to a reel.

The frame of the wire-carriage is placed to one side of the last post in line with the strung wire. This frame consists of the up-

rights B' B', between which are journaled the wire-reels C C C, three in number, and said reels are made sufficiently wide to enable the winding of two or more wires thereon. To the outside of one of said uprights are secured the handles D, said handles being secured in turn to the reels C C C, so that with the turning of the former the reels are caused to revolve for the purpose of tightening or loosening the wires wound thereon.

The operation of crossing the wires for the purpose of securing the pickets or palings therebetween is performed by means of my improved wrench or crosser, which crosser or wrench consists of the vertical wooden or steel beam E, which has secured therein at the top, center, and bottom the arms or bolts E' E' E', said arms projecting at right angles to said beam. The projecting portion of the right-angular extending arms or bolts are bifurcated, as shown at *e'*, and provided with perforations *f*, through which pass the bolts *f'*, so as to permit of the wrench-plates being pivotally secured therebetween. The pivotal wrench-plates are represented by the letter F, and are of triangular shape, and made, preferably, of steel; but any other suitable metal may be employed. The edges adjacent to the pivotal point of the plate are provided with the inclined slots *g g'*, which slots terminate at their base in a circular opening *g''*. These inclined and circular slots are designed to receive and hold the wires *a a'* when the wrench or crosser is in use for the crossing of wires. The inner angular edges of the wrench-plates have perforations *i* therein, through which the bolts *f'*, passing through the perforations *f* in the bifurcated portion of the arms E', pass in order to pivotally secure the same between said bifurcated arms. The inner face of the vertical beam E is provided with a series of notches or depressions *h h*, and the upper and lower edges thereof are beveled or inclined, as shown at *h' h'*, so as to receive the upper and lower edges of the triangular wrench-plates when raised or lowered. The outer face of said beam is provided with the knob-handle J. In order to facilitate the raising or lowering of the beam and to make an easier movement thereof for the crossing of the wires, I place the knob-handle J directly in



the center of said beam, thereby causing an even distribution of the applied power.

In using my improved wrench or crosser the operator stands in front of the stretched wires  
 5 *a a'* and the line of posts. The crosser or wrench is placed within about two or three feet from the post A, and the upper wire *a* is placed in the inclined slot *g*, formed in the edge of the triangular wrench-plate, and the  
 10 wire *a'* in the inclined slot *g'* of said plate. The operator, grasping the knob-handle J, forces the vertical beam upward, which movement throws the upper front edge of the triangular wrench-plate outward and downward  
 15 until the lower front edge or corner of said plate rests within the notch or depression *h*, formed in the inner face of the vertical beam. This movement of the beam and triangular wrench-plates causes the crossing of the wires,  
 20 when a picket or paling K is inserted between said crossed wires in a vertical position. A downward movement is then given to the vertical beam, thereby causing a reverse motion of the wrench-plates to that previously de-  
 25 scribed, so as to cross the wires in an opposite direction, thus binding the first picket securely in position, and while said wires are thus crossed another picket is placed therebetween. A half-upward movement being then given to  
 30 the vertical beam, the wrench-plates are brought to their original position, and by increasing said movement of the beam the wires are again crossed, as in the first instance, thus securely binding the second paling and plac-  
 35 ing the wires in position to receive another or third picket, and thus the operation of alternately raising and lowering the vertical beam is continued until the fence is completed. Of course it will be understood that with each  
 40 insertion of the pickets the vertical beam and wrench-plates are moved forward or along the wires, so as to allow for the insertion of the next paling. After all palings have been placed in position the wires may be further  
 45 tightened, if so desired, by the turning of the

wire-reel in a direction opposite to that of unwinding the wire.

I am aware that many minor changes may be made in the construction and arrangement of parts herein shown without being a de- 50 parture from the nature and scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure protection in by Letters Patent of the United 55 States, is—

1. In a wire-fence wrench or crosser, the combination, with a vertical beam having a handle secured to the outer face or edge thereof and arms secured to the inner face or 60 edge at right angles thereto, of triangular wrenches or crosser-plates pivotally secured to the projecting arms, said plates being formed on opposite edges adjacent to the pivotal point with inclined slots terminating at their 65 inner ends in semicircular slots, substantially as set forth.

2. In a wire-fence wrench or crosser, the combination, with a vertical beam formed on its inner face with notches or depressions hav- 70 ing the upper and lower edges thereof beveled or inclined, and provided on its outer face or edge with a handle and upon its inner face or edge with arms extending at right angles thereto, said arms having their ends bifur- 75 cated and transversely perforated, of triangular wrenches or crosser-plates having the apices pivoted between the bifurcated ends of the arms, and also provided on their edges opposite to the pivotal point with inclined 80 slots terminating at their ends in semicircular slots, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES HANSON VAN EPPS.

Witnesses:

ALEXANDER W. BEECHER,  
 WILLIAM E. YEAGER.