

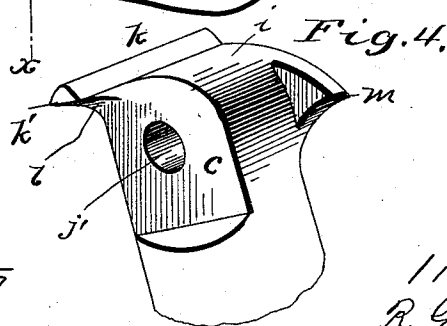
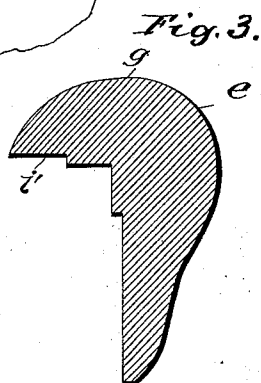
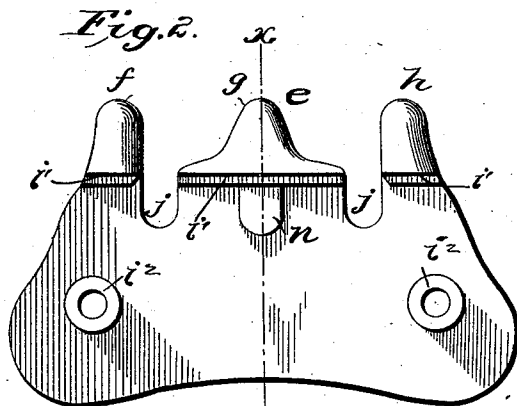
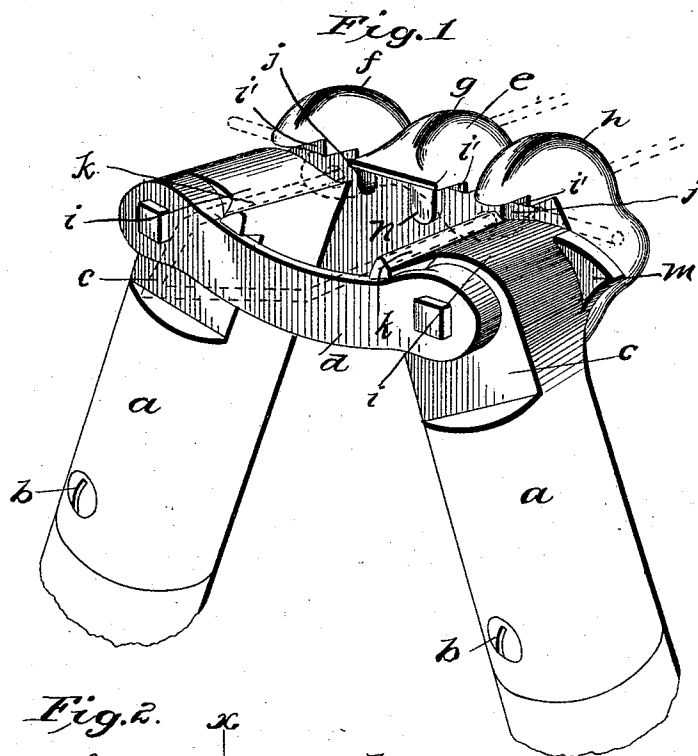
(No Model.)

2 Sheets—Sheet 1.

R. G. KENNEDY.
WIRE FENCE TOOL.

No. 567,477.

Patented Sept. 8, 1896.



WITNESSES

A. B. Duggan
C. M. Werle

INVENTOR

R. G. Kennedy
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ATTORNEY

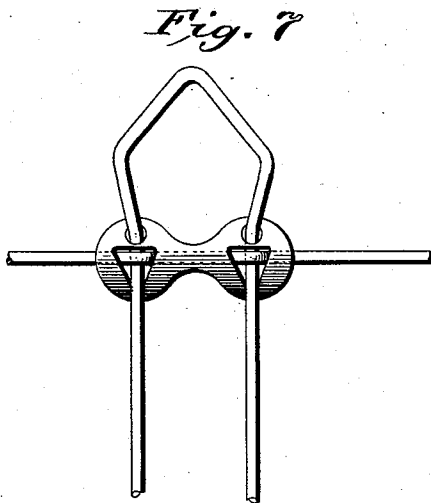
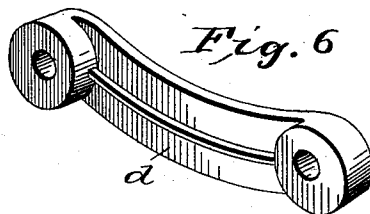
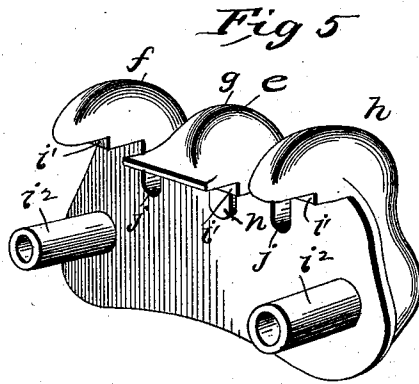
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2 Sheets—Sheet 2.

R. G. KENNEDY.
WIRE FENCE TOOL.

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WITNESSES

A. B. Dege
C. J. Duffy

INVENTOR

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UNITED STATES PATENT OFFICE.

RICHARD G. KENNEDY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF
FOUR-FIFTHS TO CARL STEWART, B. D. REED, A. W. PENCE, AND
C. J. GIBSON, OF SAME PLACE.

WIRE-FENCE TOOL.

SPECIFICATION forming part of Letters Patent No. 567,477, dated September 8, 1896.

Application filed March 3, 1896. Serial No. 581,630. (No model.)

To all whom it may concern:

Be it known that I, RICHARD G. KENNEDY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wire-Fence Tools; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in wire-crimpers and clamp-tighteners for fences.

The object of the invention is to provide a simple hand-operated tool so constructed and arranged that the horizontal wires of a fence, after having been properly spaced, can be crimped at the desired points and securely locked together with the vertical picket or brace wires in an opening through suitable clamping-plates.

The invention consists in certain novel features of construction and in combinations and arrangements of parts more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of the complete tool, dotted lines showing the vertical and horizontal wires and clamp in position to be fastened. Fig. 2 is a front elevation of the crimping and clamping head. Fig. 3 is a sectional view of the crimping or clamping head on the line *x x*, Fig. 2. Fig. 4 is a perspective view of one of the clamping-jaws, two being employed in the complete machine, as shown in Fig. 1. Fig. 5 is a perspective view of the crimping and clamping head. Fig. 6 is a perspective view of the cross-bar connecting the several parts together. Fig. 7 is a front elevation of a section of fence as it appears after the tool has been used. Fig. 8 is a detail view of a horizontal wire employed in the construction of the fence after being crimped.

Like letters of reference mark the same parts throughout the different views.

a a represent two receiving caps or sockets

in which are secured suitable handles, of any desirable material and length, by fastening means, such as screws *b b*, passing through the lower portions of such caps or sockets and entering the handle proper. These caps or sockets have their upper front faces cut away or recessed, as at *c*, to form bearing-surfaces for the curved cross-bar *d*, which is loosely yet snugly connected to the two movable heads *i i*, or upper ends of the receiving-caps, by means of nuts and bolts or other fastening means being passed therethrough. These bolts pass through said movable heads, and then through the crimping or clamping head *e* in the rear thereof. This crimping or clamping head has a series of upwardly and outwardly projecting heads or projections *f g h*, the central head *g* being larger than the two side heads and each being cut away on its under face near its outer edges at *i'*, the purpose of which will hereinafter be fully explained.

i² i² indicate several hollow sleeves or thimbles, Fig. 5, preferably formed integral with and projecting from the front or face portion of said crimping and clamping head and forming a solid support for the two movable heads or members *i i*, the openings *j'* in said movable heads fitting over and snugly around and adapted to be freely movable on said sleeves or thimbles. The bolts or other fastening means are passed through these sleeves or thimbles and properly secured, thereby securely uniting the rear crimping and clamping head and the movable or swinging heads together. By the use of these sleeves or thimbles all possibility of the bending of the bolts is prevented and a firm support or bearing is afforded for the reception of the bolts or other fastening means that may be passed therethrough, which could not be had were bolts only used without the sleeves or thimbles.

j j indicate two vertical slots located on either side of the main rear head or projection *g* for the reception of the vertical wires of the fence while the horizontal wire is being crimped.

The two movable heads or members, which are lettered *i i*, are mounted and adapted to be freely movable between the curved bar *d*

and the rear crimping or clamping head *e*. These movable heads or members have their upper front faces recessed or cut away, as heretofore explained, for the reception of the curved bar *d*, and each member is provided on its upper inner edge with an offset or projection *k*, extending upwardly to form stops or projections *k'*, and each one of these upwardly-extending stops or projections is recessed or cut away on its under surface, as at *l*, so that the upper curved surface of the bar *d* will come in close contact with said stops or projections when the device is in operation.

m m indicate wings formed on the outer rear surfaces and integral with the movable heads or members to serve as guiding and supporting means for the horizontal wire when the same is placed in position to be crimped.

n represents a raised surface on the front face of the central crimping or clamping head *g* to hold the horizontal wire in place while the machine is in operation.

The particular style of fence that is constructed by the present device is not claimed herein, but forms the subject-matter of a separate application, Serial No. 581,631, filed March 3, 1896, the dotted lines in Fig. 1, however, giving a sufficient intimation of the construction of such fence.

The operation of the device is as follows: When it is desired to construct a fence of the construction referred to in the above-mentioned application, a series of horizontal wires are placed one above the other and secured to posts. They are then properly gaged, as usual, so that they will be located at the proper distances above each other, and so as to guide the operator in crimping the wires and enable him to have them in their proper vertical position. After these horizontal wires have been properly strung my device is brought into use. The two freely-movable heads *i i* are swung outwardly and the horizontal wire allowed to enter beneath the rear projecting clamping or crimping heads *f g h*. When the said wire is directly beneath said three heads, the two swinging heads or members are brought together. As this is being done the two offsets or projections *k* bear up against the under surface of the wire, and by the pressure exerted by the operator and by reason of the vertical slots *j j* directly above said offsets or heads the offsets or projections *k* will contract the wire to a certain extent and form a crimp or kink within the space of said vertical slots of the crimping or clamping head in the rear of the tool. It should be noticed that both of the movable heads when brought together form separate crimps or kinks in the horizontal wire, and that the central head *g* of said crimping and clamping head, by reason of its recessed or part cut away under surface, forms a curve or spring for the purpose of counteracting the effects of heat and cold by expansion and contrac-

tion of the wires. A suitable curved clamp provided with triangular openings and small openings in its upper face is then inserted over the wire just crimped or clamped, and a vertical wire, or somewhat U-shaped wire picket, is inserted through said smaller openings in the upper portion of the clamp, passing through and under the crimp formed in the horizontal wire and through the lower openings located in the bottom of said clamping-plate. After the horizontal vertical wire and clamping-plate have been placed in position my improved tool is again brought into use. The several parts of the fence comprising the vertical horizontal wires and the clamping-plate being now in position, but not locked, the two movable members or handles of my tool are grasped by each hand, and the locking-plate, having the horizontal and vertical wires secured therein, is inserted between and underneath the rear clamping or crimping heads *f g h*. As the two movable members are brought together, the stops or projections *k* will bear up against the rear surfaces of the clamping-plate, and as the said two members are brought together the said clamping-plate will be flattened out against both the vertical and horizontal wires and a secure fastening of the several parts obtained. It should be noticed that the crimping-heads *f g h* bear down on the front faces of the clamping-plate while the stops or projections are bearing upwardly against the rear surfaces of such plate, so that there is a continuous pressure on both the front and rear surfaces of such locking-plate, thereby enabling the operator, by merely bringing the two movable members together, to flatten out said clamping-plate and securely lock the several wires therein.

The device is very simple in construction and effective in operation, and by its use the several parts constituting an ornamental wire fence such as described can be securely locked together.

It is evident that various slight changes might be made in the forms, constructions, and arrangements of the parts described without departing from the spirit and scope of my invention, hence I do not wish to limit myself to the exact construction herein set forth, but consider myself entitled to all such changes as fall within the spirit and scope of my invention.

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

1. A wire-fence machine comprising the two movable and freely-swinging members, the curved bar in the front thereof connecting said two members, and a crimping and clamping plate in the rear of said movable members carrying a series of heads, for the purpose set forth.

2. A wire-fence machine comprising the two movable and freely-swinging members, the curved bar connected to the front of each of

said swinging members by means of bolts passing therethrough, the crimping and clamping plate in the rear of said movable members and connected thereto by said fastening means as described, and provided with the three clamping and crimping heads, for the purpose set forth.

3. A wire-fence machine comprising the two movable and freely-swinging members having the upper recessed or cut-away portion provided on its upper inner edges with the offsets or projections, the rear clamping or crimping head, a bar connecting the said two freely movable or swinging members, and bolts and nuts securing said curved bar, movable members, and rear crimping or clamping head together, for the purpose set forth.

4. A wire-fence machine comprising the two movable and freely-swinging members having the upper recessed portion and provided on their upper inner edges with the offsets or projections for the purpose set forth, the rear clamping or crimping head, a bar connecting the said two freely movable or swinging members, and nuts and bolts connecting said bar, the freely-swinging members, and the rear crimping or clamping head, as set forth.

5. A wire-fence machine comprising the two movable and freely-swinging members having the upper recessed portions and provided on their upper inner edges with the offsets or projections for the purpose set forth, the rear clamping or crimping head provided with the three separate heads or projections *f*, *g*, *h*, the central head adapted to form a spring and the two opposite ones crimps or kinks in a wire as the two freely movable or swinging members are brought together, a bar connecting the said two freely movable or swinging members, and nut-and-bolt connections connecting the said bar, the movable members, and the rear clamping or crimping plate or head, for the purpose set forth.

6. A wire-fence machine comprising the two movable and freely-swinging members having

the upper front recessed faces, and provided on their upper inner edges with the offsets or projections for the purpose set forth, each of said offsets or projections being cut away or recessed on its under surface as at *l*, the rear clamping or crimping head being provided with the three separate heads or projections *f*, *g*, *h*, each recessed on its under surface for the purpose set forth, and nut-and-bolt connections for uniting said crimping or clamping head, movable members, and cross-bar, as set forth.

7. The combination in a tool for forming wire fences, consisting of the movable heads provided with the upper offsets, the rear head having the two recesses or slots between the three heads, the said offsets being adapted to mesh into the said recesses to crimp the wire, substantially as set forth.

8. The combination in a tool for forming wire fences, of the rear head-piece, the front head-pieces having projections on their top, lateral projections on their sides, and the connecting-link, the upper projections on the front heads being adapted to mesh in between the recesses of the rear head, substantially as set forth.

9. A wire-fence machine comprising the two movable and freely-swinging members, the curved bar in the front thereof, a crimping and clamping head in the rear of said movable members, the sleeves or thimbles formed on the front face of said crimping and clamping head, and nut-and-bolt connections uniting said movable members and the rear crimping and clamping head, for the purpose set forth.

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

RICHARD G. KENNEDY.

Witnesses:

CARL STEWART,
B. D. REED.