

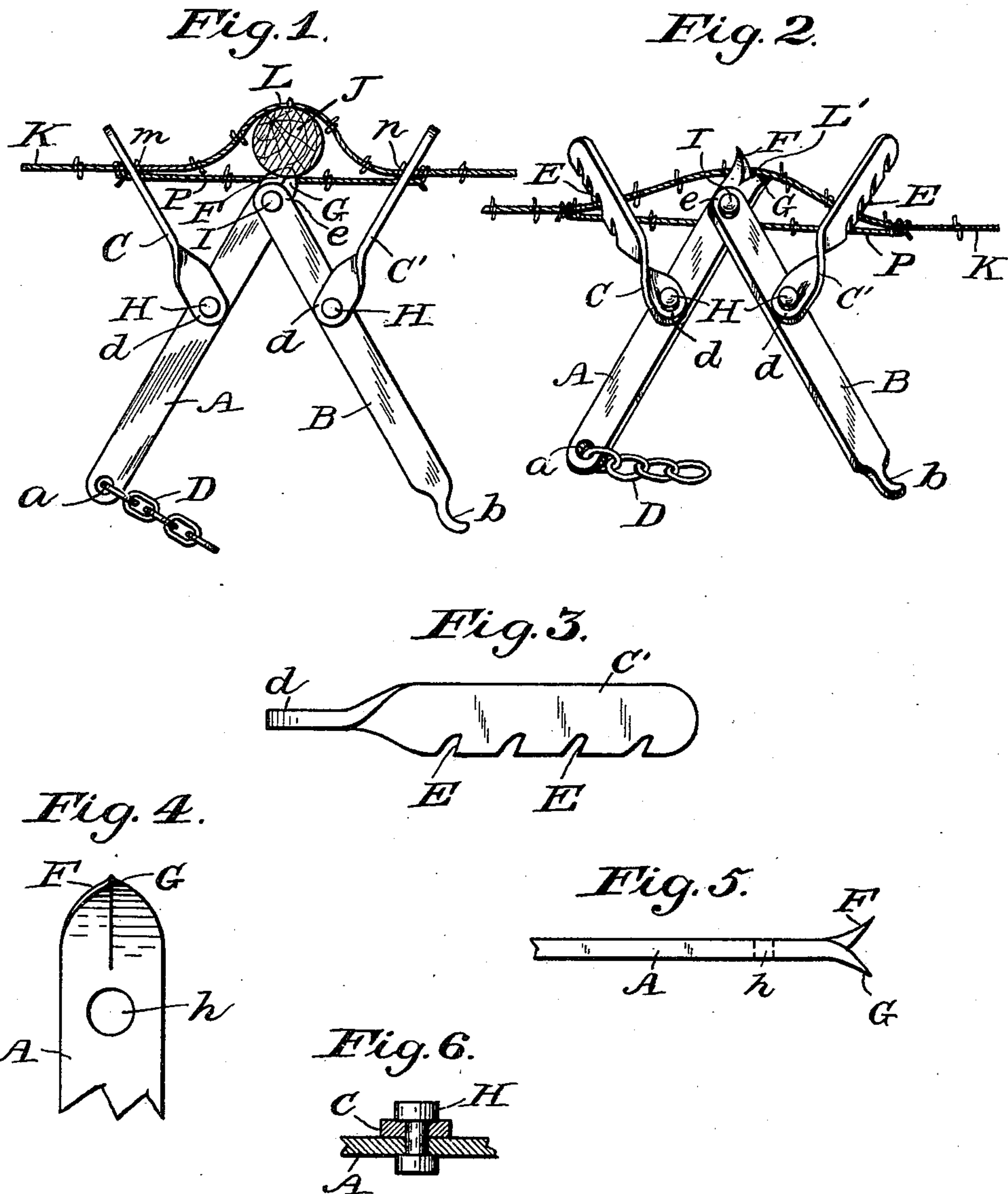
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Patented Sept. 25, 1900.

O. L. BROWN.  
WIRE FENCE TOOL.

(Application filed Jan. 6, 1900.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

ORA L. BROWN, OF NORCATUR, KANSAS.

## WIRE-FENCE TOOL.

SPECIFICATION forming part of Letters Patent No. 658,699, dated September 25, 1900.

Application filed January 6, 1900. Serial No. 549. (No model.)

*To all whom it may concern:*

Be it known that I, ORA L. BROWN, a citizen of the United States, residing at Norcatur, in the county of Decatur and State of Kansas, have invented certain new and useful Improvements in Tools for Use on Wire Fences; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 a part of this specification.

My invention relates to tools that are designed to be employed when constructing and repairing wire fences of various types, the object being to provide an improved tool whereby the slack in wire fences may be taken up or eliminated, so that the fence may be fully effective and stable; and a further object is to provide a tool of this character which may be made use of by one person alone in stretching and tying the loops, whereby the line or horizontal wires are rendered taut, and one which may be cheaply manufactured and be durable and economical in use.

With these objects in view my invention consists in a tool comprising a pair of pivoted levers of peculiar form and a gripping-arm of new and novel form pivoted to each of the levers and a latch for the levers, whereby a fence-wire may be grasped and stretched and thus maintained while being secured in a suitable manner to eliminate the sagging thereof, such tool being adapted to be used either at a post in connection therewith or at any point between posts in connection with the wire upon which it is intended to operate; and the invention further consists in the parts and combination and arrangement of parts hereinafter particularly described and claimed.

Referring to the drawings, Figure 1 represents my invention in a plan view as operating upon a horizontal wire of a fence at a post, which is shown in horizontal section; Fig. 2, a perspective view of my tool as operating to stretch such a fence-wire at a point where there may be no post; Fig. 3, a side elevation of a gripping-arm; Fig. 4, a top plan view of the end of the lever that is designed to engage

either a post or a wire between posts; Fig. 5, a side elevation of the part shown in Fig. 4, and Fig. 6 a sectional detail view illustrating pivoted parts.

Similar letters of reference in the several figures of the drawings indicate similar parts.

In construction I form the tool of suitable material, preferably of merchant bar-iron, of the "flat-bar" type, of oblong rectangular form in cross-section. The main portion comprises two arms or levers A and B, of about equal length and of identical thickness and width, one of which is pivoted by a rivet or bolt I at one end *e* thereof to the other lever at a hole *h* near the end thereof, which is provided with a pair of prong-points, as F and G, turned in opposite directions and projecting obliquely from the end of the lever, the prongs being adapted to slightly penetrate a wooden post and adapted to also straddle a horizontal wire and grip or bite the same when forced into contact. While obviously the dimensions may vary, I find that it is convenient to make the levers about twenty inches in length, and at a point on each lever about seven inches from the pivot-pin I are located pivot-pins or bolts H H, to which are pivoted the ends *d d'* of a pair of twisted gripping-arms C and C' of identical form, each of suitable length (about twelve inches) and provided at one edge thereof (preferably the bottom, as used) with slanting notches E of suitable number, so formed that when forced over a fence-wire and the arm forced laterally at its pivoted end the wire shall be gripped sufficiently to prevent the bar from slipping along the wire. At the free end of one of the levers, as A, is an eye *a*, in which is secured a link-chain D, and at the free end of the other lever, as B, is a hook *b*, adapted to enter a link of the chain D, so that when the free ends of the lever are drawn more or less near each other in stretching the wire K the ends may be coupled together and retained in the desired position, so that the operator may have the use of both his hands for other purposes.

In forming the prongs F G it will be understood that they should be only sufficiently large to straddle a fence-wire; the drawings being somewhat exaggerated in the interest



of distinctness, and the pivot-hole *h* should be as close as practicable to the bases of the prongs.

In forming the arms C C' each is so twisted 5 in its longitudinal axis near the end *d*, by which it is connected to the lever, that the broader sides of the end *d* lie in planes at right angles to the planes of the broader sides of the notched body portion of the arm, or, 10 as shown, when the levers are horizontal the ends *d d*, connected thereto, are also horizontal, while the notched portions have their sides in vertical planes. Therefore the arms C C' move only radially in a plane parallel 15 to the plane in which the levers move, and thus when the arms are placed upon a wire and the levers manipulated by the operator the levers are supported mainly by the arms and wire while the prongs are being placed 20 in proper engagement. The arm is so formed and so pivoted to the levers, as described, in order to enable the operator to readily either spread or contract the arms for proper adjustment when placing them upon the wire 25 with the hands while lifting the tool to its place. The arms may be positively controlled either by grasping them near their pivoted ends or by grasping the levers at the points at which the arms are pivoted to them 30 and then moving the arms by means of the thumb and index-finger. After proper adjustment is made the hands may be moved along the levers to the free ends thereof to attain the maximum leverage. This construction permits of easy and convenient positive handling of the tool, and having no parts 35 operating in differing planes it does not tumble about awkwardly and "disjointedly," as is the case in handling other tools of this character. 40

All parts of the tool being of simple design it may be produced at small cost and altogether has many advantages.

In practical use the tool is placed in an approximately-horizontal position, somewhat as 45 represented in Figs. 1 and 2, the levers moved apart at their free ends, and the gripping-arms extended over the top of a wire that may be selected to be stretched, or rather have 50 a sag removed, which may have been produced by cattle or otherwise. If it is preferred to operate at a post J, where the wire is secured thereto, as at L, the tool is placed at the opposite side of the post with the 55 prongs against the side of the post, as in Fig. 1, in which the tool is represented as having only partially drawn the wire K to the opposite side of the post to which it is attached. A further movement of the levers would permit the chain D to be coupled to the hook *b*. 60 When the wire shall have been drawn taut, a tie P is connected at its ends to the line-wire and displaces the part that is slack and then may be secured to the post in the usual manner. In adjusting the tool any of the 65 notches E may be employed in which to grip

the wire, according to the amount of slack to be taken up. When used between posts, the tool is employed in a similar manner, but with the difference only that the prongs F 70 and G straddle the wire, as at L', and after the tie P is attached the slack portion of the wire K between the points of attachment of the tie may either remain as a loop or it may be cut, and the ends thus produced twisted 75 about the tie to further strengthen the splice. The tool may be applied with equal facility to any of the lower wires, as well as the top one, and is adapted for use on various types of woven-wire fences having a mesh open 80 enough to admit the gripping-arms.

It will be observed that when grasping the tool at or near the pivoted ends *d d* it is nearly in balance, so that it may be lifted and at the same time adjusted with the greatest 85 despatch, and this is particularly advantageous when it may be necessary to spread the free ends of the levers to their utmost capacity.

Having thus described my invention, what 90 I claim as new, and desire to secure by Letters Patent, is—

1. In a fence-tool, the combination of the lever A, the prongs at one end of said lever, the pivot-hole at the bases of said prongs, the 95 eye at the opposite end of said lever, the link connecting with said eye, the arm C having the axially-twisted end lying against the broader face of said lever and pivoted thereto so that said arm is prevented from dropping 100 below the plane in which said lever operates, the gripping-teeth at the under edge of the portion of said arm which lies beyond said twisted portion, the lever B lying upon said lever A and pivoted thereto at said pivot-hole, the hook at the free end of said lever B, 105 the arm C' having the axially-twisted end lying against the broader face of said lever B and pivoted thereto so that said arm is prevented from dropping below the plane in which said lever operates, and the gripping-teeth at the under edge of the portion of said 110 arm C' which lies beyond said twisted portion, said levers and said arms all moving substantially in the same plane, as set forth. 115

2. In a fence-tool, the combination of the pivoted levers, the coupling-links, and the gripping-arms pivoted to the levers at horizontal faces thereof and each consisting of a 120 bar having notches at one edge thereof and an axial quarter-twist near one end thereof which end is pivoted to the lever and moves only in a radial direction in a horizontal plane with the lever, substantially as set forth. 125

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

ORA L. BROWN.

Witnesses:

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