

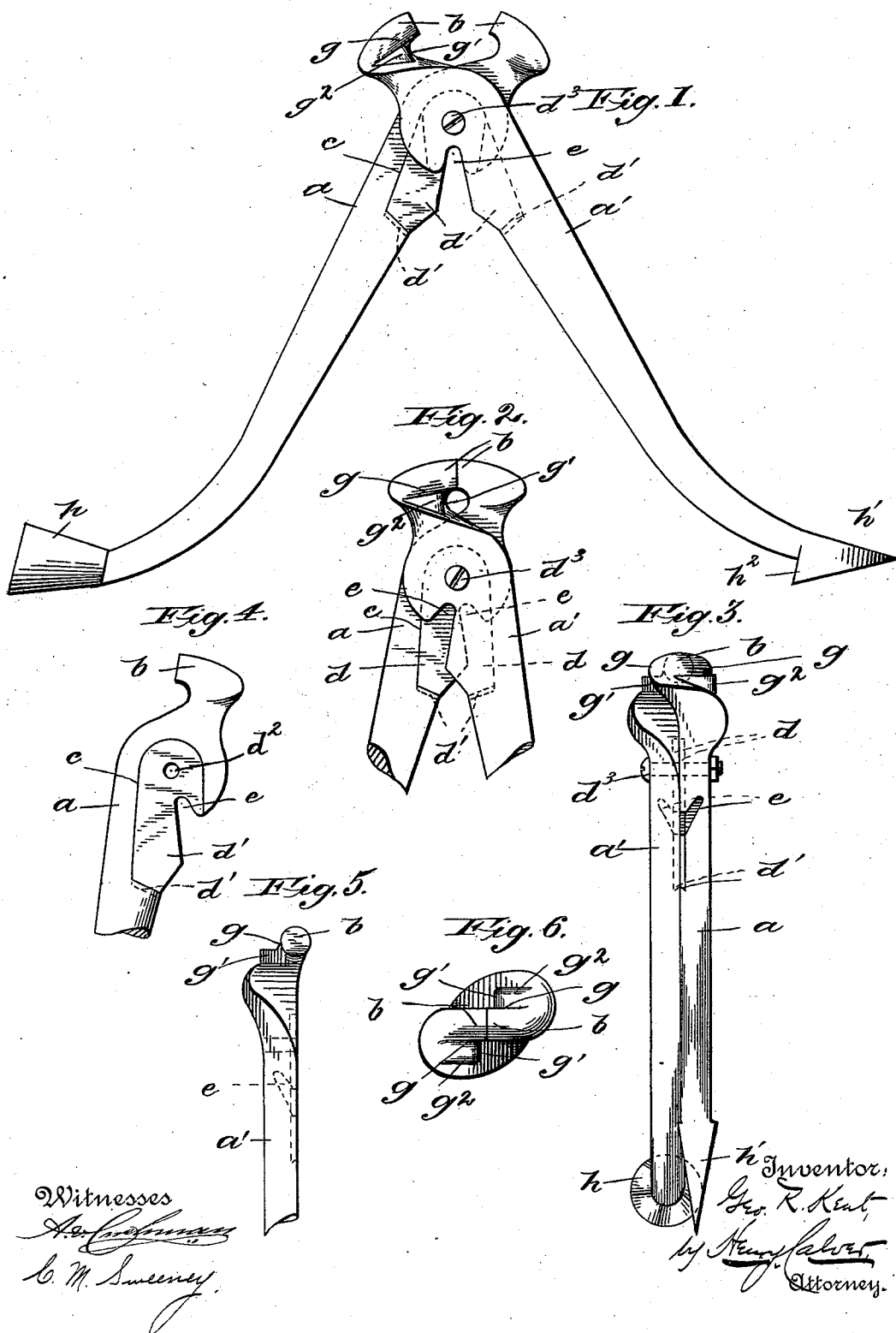
(No Model.)

2 Sheets—Sheet 1.

G. R. KENT.
WIRE FENCE TOOL.

No. 533,066.

Patented Jan. 29, 1895.



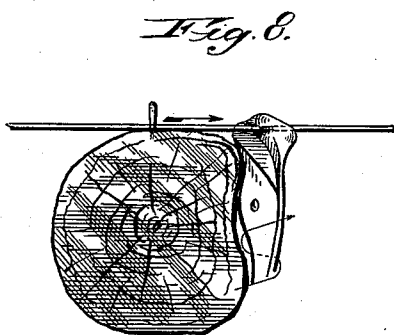
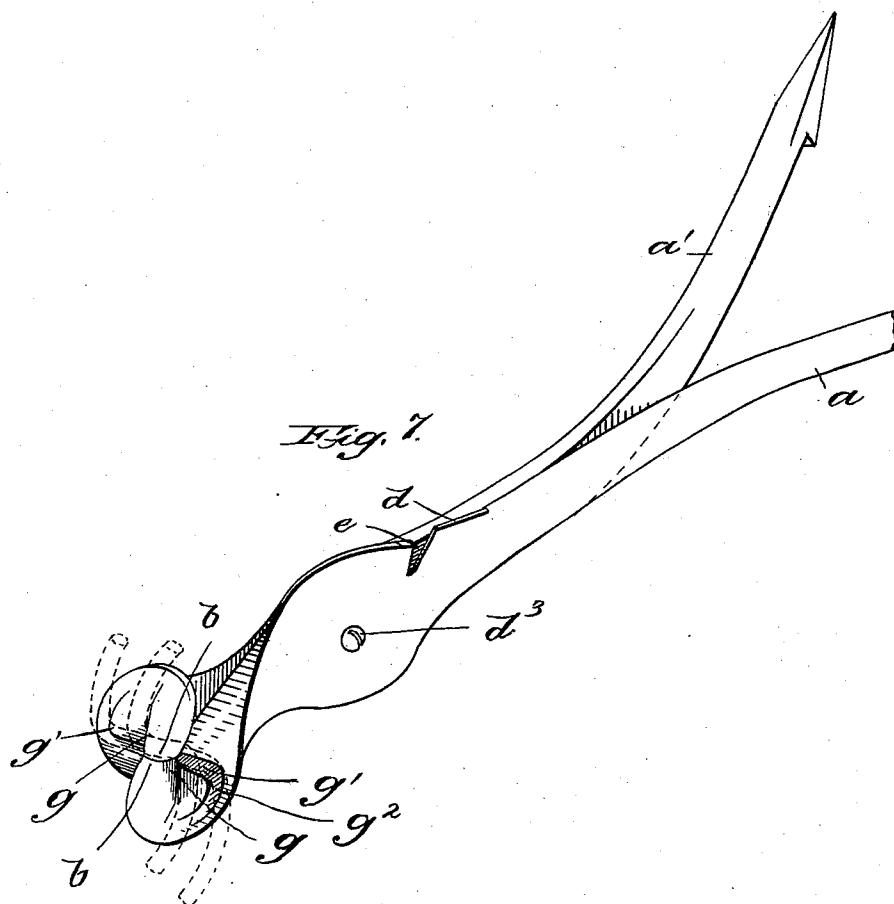
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WIRE FENCE TOOL.

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Witnesses
A. J. Conner
C. M. Sweeney

Inventor:
Geo. R. Kent
by *Wm. Falver*
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE R. KENT, OF ELKHORN, WISCONSIN, ASSIGNOR TO CHARLES E. FULLER, OF BELVIDERE, ILLINOIS.

WIRE-FENCE TOOL.

SPECIFICATION forming part of Letters Patent No. 533,066, dated January 29, 1895.

Application filed June 29, 1894. Serial No. 516,084. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. KENT, a citizen of the United States, residing at Elkhorn, in the county of Walworth and State of Wisconsin, have invented certain new and useful Improvements in Wire-Fence Tools, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to tools for use in the construction of wire fences and it is my object to provide a device which, because of its novel construction, is peculiarly adapted for work of the particular kind for which it is intended.

One feature of novelty of my improved tool is the wire cutting device, which is of such character as to provide means whereby a wire may be quickly and easily severed.

Another essential feature of my invention is a novel and effective wire gripping and tightening head. This portion of the tool is especially adapted for tightening the wire after it has been strung in position upon the posts and has been drawn as taut as is practicable without the use of a tightening tool, but before the said wire has been permanently stapled.

Other features of novelty will appear in the following description and will be particularly pointed out in the claims annexed thereto.

In the drawings Figure 1 is a side view of my improved tool showing the gripping jaws and cutting knives in open position. Fig 2 is a similar view of the upper part of the tool showing the jaws closed. Fig. 3 is an edge view of the tool. Figs. 4 and 5 are side and edge views, respectively, of the upper portion of one of the members. Fig. 6 is an end view of the head of the tool, with the jaws closed, to show the shoulders on either side of the gripping jaws. Fig. 7 is a perspective view of the tool, the wire being shown in dotted lines in the positions it will occupy when engaged by the several sets of shoulders on either side of the gripping jaws. Fig. 8 is a view of a post and wire strand with the tool in the position it will occupy during the tightening of the strand.

Referring to the drawings by letter, *a, a'*,

denote the two members of the tool, which are pivoted together and provided at their upper ends with the hook-like jaws *b*. Each of the said members *a, a'*, is provided on its face with a shallow recess *c*, open on one side, and in said recesses are seated wire cutting knives *d*. An open mouthed slot *e* is cut in each of said members *a, a'*, and runs from a point below the pivotal point of the members to a point just beneath said pivotal point, the direction of said slots *e* being diagonal to the bodies of the members *a, a'*. The wire cutting knives *d* which are seated in the recesses *e* in the inner faces of the members *a, a'*, are provided with corresponding slots which register with said slots *e*.

The result of the novel arrangement is that when the members of the tool are thrown to their open position, the diagonally placed slots register with each other and form an opening for the reception of the wire to be severed. Since the cutting point of the knives is at the apices of the slots and since by the novel disposition of the slots said apices are brought to a point just beneath the pivotal point of the members, said pivotal point being the fulcrum point of the knives, it is obvious that a very powerful cutting leverage is obtained and the severing of a wire is readily accomplished.

To secure the knives *d* in the recesses I provide the following novel means: The lower end of each knife is beveled, as at *d'*, and said beveled end fits snugly the undercut or dovetailed lower end of the recess, while the upper end of each knife is provided with a hole *d²* which registers with the holes in the members *a, a'*, through which the pivot pin *d³* passes. It will be apparent that by this construction the knives are securely held in place so long as the members are fastened together. When, however, it is desired to remove the knives for repair or for the purpose of replacing them with new ones, it is only necessary to remove the pivot pin *d³*, separate the members *a, a'*, and the knives can be lifted from their seats. By this novel construction all need of auxiliary holding screws is avoided, nor is it necessary to force the knives out of a long dovetailed recess in or-

der to remove them; which latter constructions are frequently used in devices of this character.

I will now describe in detail the novel wire tightening device which is one of the features of my invention, the object of which, as promised above, is to provide means for tightening a strand of wire which has been strung in position and partially tightened by hand, the purpose of my improved tightening head being to give the wire a final tightening before driving the staple which secures it to the post.

The hook-like jaws *b* when brought together, as shown in Fig. 2, form an aperture through which the wire passes and in which it is gripped.

To engage the wire on either side of the gripping point I provide shoulders or projections on the head of the tool, which are adapted to engage the wire as the tool is turned. The inner shoulders *g*, as will be seen on reference to Fig. 7, are formed by the hook-like portions of the jaws *b*, while the outer shoulders are formed by a projection on the faces of each of the members of the tool, adjacent to the portions *b*. These outer projections or shoulders have not only the wire engaging faces *g'*, but also the wire engaging faces *g''* which are within the periphery of the tool head, so that when the wire is caught by the outer shoulders or projections, both of said faces *g'* and *g''* act upon the wire when the tool is turned.

By reference to Figs. 7 and 8 the action of the tool on the wire will be readily understood. When the tool is gripped upon the wire and given a turn the wire will assume one of the two positions shown in dotted lines in Fig. 7 according as it is desired to take up more or less slackness in the wire, the shoulders engaging the wire on either side of the gripping point. Fig. 8 illustrates the tool in use. The strand having been gripped the tool is turned in the direction of the arrow which encircles the handles, using the post as a bearing point. The result is that the wire is stretched in the direction of the arrow which is shown parallel with it, and when sufficiently taut the holding staple is driven into the post and the wire secured.

It will be noticed that the handles of the tool are curved outwardly and upon the outer end of one handle is formed a hammer head *h*, which hammer head, because of the curvature of the handle, is in such position relative to the rest of the tool to render it especially useful as a hammer. At the outer end of the other handle I form a pointed prong *h'* which is intended for use in removing staples. Said prong is provided with an offset or shoulder *h''* just where it joins the handle, which offset or shoulder *h''* may be struck with a hammer to force the prong *h'* into a staple.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In a wire cutting tool, the combination with the two members thereof provided with open sided recesses on their inner faces, said recesses being undercut or dovetailed at their lower ends, of cutting knives seated in said recesses and having their lower ends beveled to fit into the dovetailed lower ends of the said recesses, and a pivot pin passing through said members, and the upper ends of the said cutting knives, substantially as described.

2. A wire cutting tool comprising two members pivoted together and provided with recesses on their inner faces and with wire receiving slots or notches at their opposite edges said recesses being undercut or dovetailed at their lower ends, wire cutting knives seated in said recesses and having their lower ends beveled to fit the dovetails at the lower ends of the recesses and held at their upper ends by a pivot pin which holds the said members together, said cutting knives being provided with wire receiving slots which register with said slots or notches formed in the opposite edges of said members, which slots or notches in said members and knives coincide when the tool is open and thus make a channel for the reception of the wire.

3. In a wire cutting tool, the combination with two pivoted members having wire receiving slots which run diagonally from a point below the pivotal point of the members nearly to said pivotal point, and provided with recesses on their inner faces having undercut or dovetailed lower ends, of cutting knives seated in said recesses and secured by the pivot pin of the members and the dovetails in said recesses, said knives having slots which register with the said diagonally positioned slots in said members, substantially as described.

4. A wire fence tool comprising two pivoted members provided at their outer ends with gripping jaws, inner wire engaging shoulders *g* formed on said members adjacent to said gripping jaws and outer wire engaging shoulders formed on each of the said members and having the wire engaging faces *g'*, *g''*, the said faces *g''* being within the periphery of the tool head.

5. In a wire fence tool, the combination with two members pivoted together, of cutting knives mounted on said members, wire gripping jaws at the upper ends of said members, shoulders formed on said jaws at either side of the gripping point to engage the wire when the tool is turned, curved handles for operating said cutting knives and gripping jaws, a hammer mounted on one of said handles and a staple forcing prong on the other of said handles, substantially as described.

6. A wire working tool of the class described,

comprising the two members a, a' pivoted together near one end and having their shorter ends formed into wire gripping jaws, said jaws being provided with shoulders g, g' , for
5 the purposes set forth, cutting knives seated in recesses in the inner faces of said members, and the curved operating handles one of which carries a hammer h and the other of which is provided with a staple forcing prong

h' having the shoulder or offset h^2 , substantially as described.

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

GEORGE R. KENT.

Witnesses:

MINNIE WHITE,
JAY F. LYON.