

(No Model.)

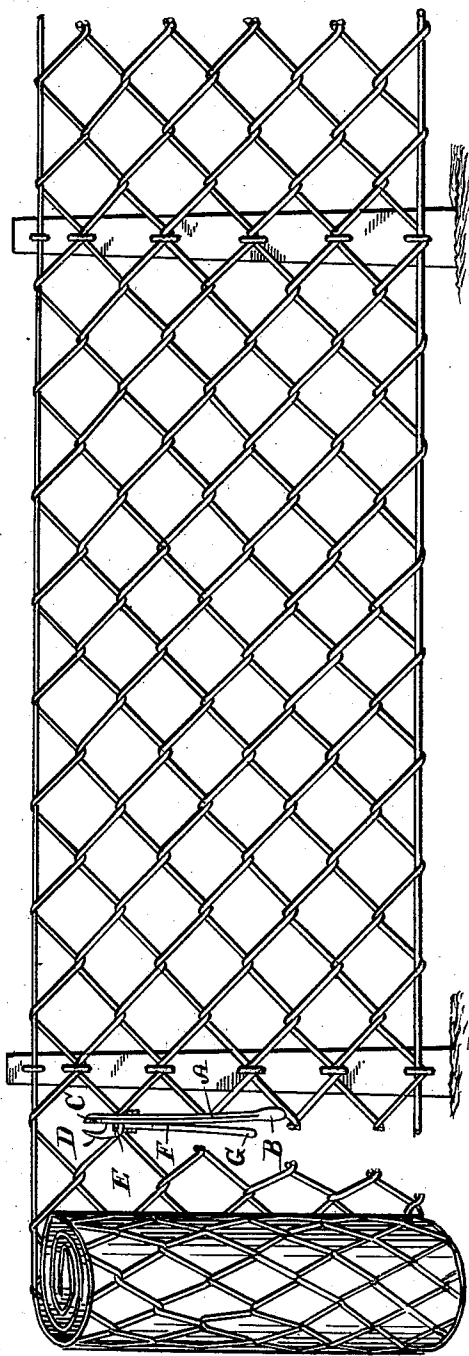
2 Sheets—Sheet 1.

H. M. CHIPMAN.
WIRE FENCE TOOL.

No. 540,634.

Patented June 11, 1895.

Fig. 1.



Witnesses

R. H. Newman.
George E. Hill

Fig. 3.

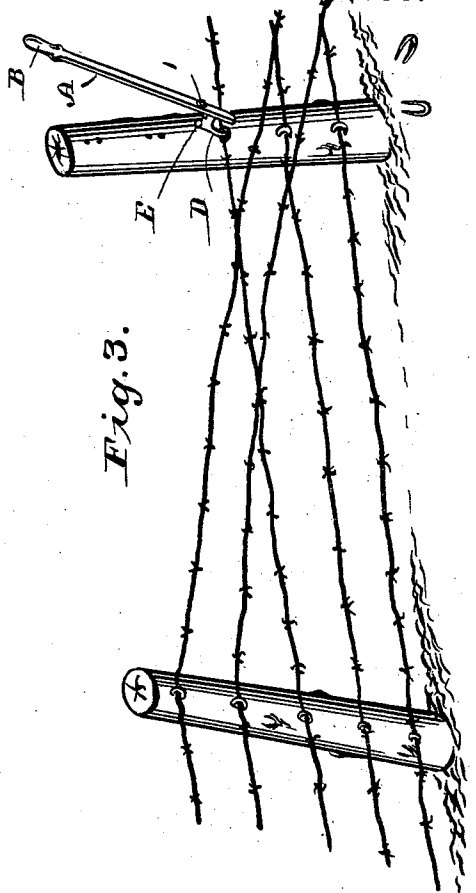
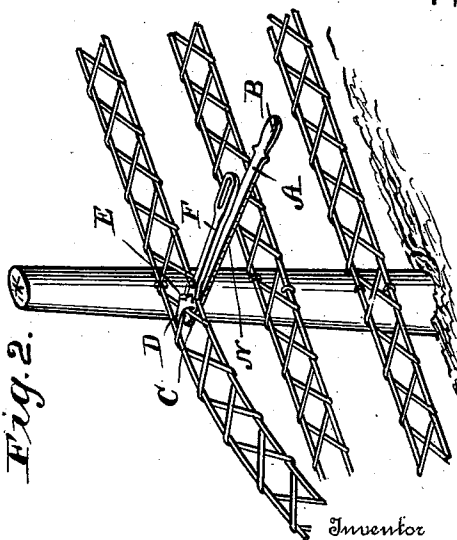


Fig. 2.



Inventor

HENRY M. CHIPMAN

By his Attorneys

C. M. Newman

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2 Sheets—Sheet 2.

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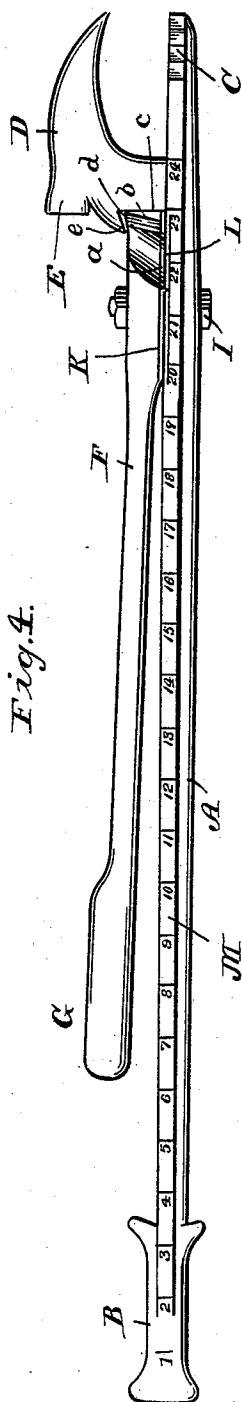


Fig. 4.

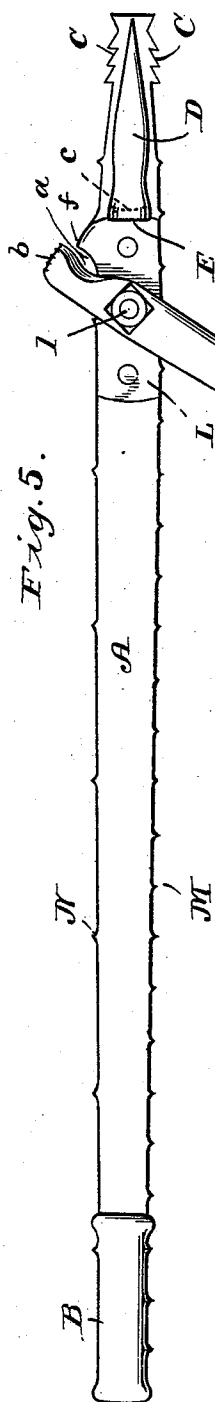


Fig. 5.

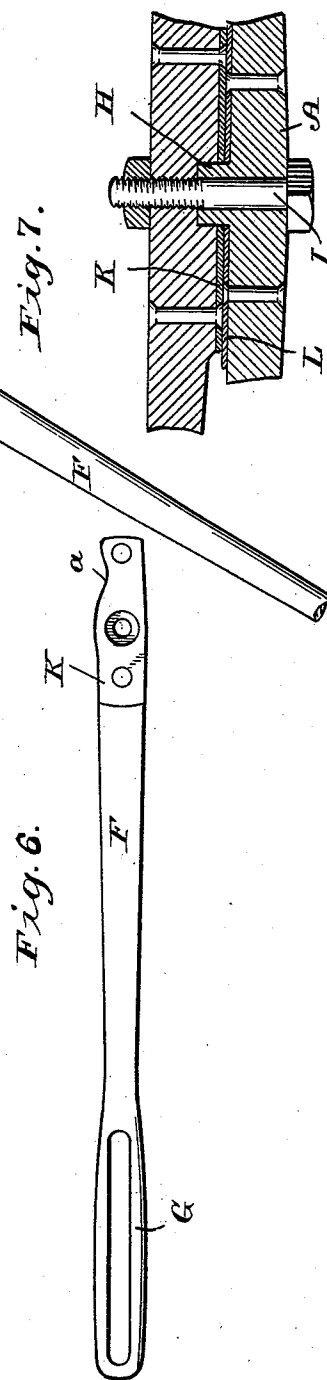
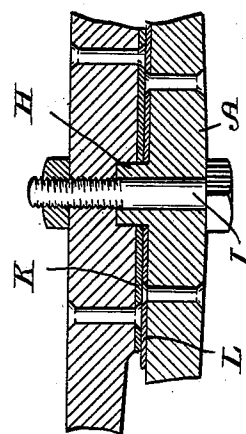


Fig. 6.

Fig. 7.



Witnesses

Robt. H. Newman.
Martha Craudall.

By his Attorney

C. M. Newman

Inventor
HENRY M. CHIPMAN

UNITED STATES PATENT OFFICE.

HENRY M. CHIPMAN, OF WATERBURY, CONNECTICUT.

WIRE-FENCE TOOL.

SPECIFICATION forming part of Letters Patent No. 540,634, dated June 11, 1895.

Application filed March 8, 1895. Serial No. 540,951. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. CHIPMAN, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Wire-Fence Tools, of which the following is a specification.

My invention relates to improvements in wire fence tools such as are used in constructing and repairing the various forms of wire fences, including barbed wire, wire boards and wire netting.

Ordinary fence posts last but a few years, while the wire lasts a long time. Therefore the wire has to be removed therefrom and attached to new posts which is a difficult task and requires proper tools and appliances.

It is the object of my invention to provide a single tool which will fully meet the requirements for the above purpose, and include all the important and essential elements which will later be fully set forth.

It is further an important object to so construct the device as to permit of it being produced cheap and durable and of any desired metal, but preferably malleable iron and steel.

I am aware that various forms of wire stretchers and other tools have been invented, with which to build the old forms of barbed, and two strand wire fences, all of which include some of the important features essential to that particular class of work. The majority of these however are objectionable, and do not meet the requirements to repair and build the improved forms of wire fences of to-day. Therefore I have sought to overcome the objections in tools of this class, and to include additional and important features which are found in no other.

Upon the accompanying drawings, which form a part of this specification, the same letters of reference denote like or corresponding parts upon the figures, and of which—

Figure 1 shows the application of my novel tool in the form of cutting a strand of poultry-netting. Fig. 2 shows another and important operation of the tool, that of stretching wire boards. Fig. 3 shows still another practical application of the tool, that of drawing staples for the removal of barbed wire from old decayed fence-posts. Fig. 4 is a side elevation

of my novel fence-tool complete. Fig. 5 is a plan view of the tool, the operating-lever being in an open position. Fig. 6 is a detailed inverted plan of the operating-lever. Fig. 7 is an enlarged central vertical section showing the hub and socket connection of the operating-lever.

It is obvious that my tool is adapted to many other operations than those few shown, for instance, that of laying out the distance between the wire upon the posts; also, twice the length of the tool makes the lawful height for a fence.

In Fig. 1, the tool is shown in the act of severing the remaining roll of wire from the completed fence. In most tools of this class this operation is very difficult as the cutting edge, if there be one, is upon the inside, and the handles of the tool have to straddle the wire to be severed, which procedure is impractical for wire netting. In stretching wire mesh it is essential to stretch the outer wires or salvage edge, and not draw upon the meshes. Therefore in stretching netting or wire boards, I apply the tool as shown in Fig. 2, grasping the outer wires between the points *d* and *e* of the levers.

In the operation of drawing the staples as will be seen in Fig 3, the shearing member of the tool is not essential, and has been omitted for clearness. The tool is applied in the manner illustrated, being held by one hand of the operator, while with the hammer in the other hand he would strike the head *E* of the tool, driving the prong thereof in under the staples, thus drawing the same.

Referring to the letters of reference upon the accompanying drawings *A* indicates the principal lever which is provided with a handle *B* by means of which said lever is operated, and the wire stretched. The forward end of this lever is provided with a series of slanting teeth *C* upon each side, so formed as to engage the post as the tool is slipped around it, and prevents the tool from slipping therefrom during the operation of taking up the slack in wire. Extending from the front end of the lever is a single curved sharp prong *D*, for the withdrawal of staples, in removing old wires. In repairing wire fences it is very essential to have a tool which can be used to withdraw staples, without injury to the wire or

post. Therefore in connection with my tool, and prong D for this purpose, I provide a head E which serves as a striking point by which to drive said prong D in under a staple. This feature is very important since it permits of the withdrawal of a staple and the removal of the wire quickly and satisfactorily.

The lever A has secured thereto by means of rivets a steel shearing blade L. Projecting through this blade is a hub H serving as a bearing for the co-operating shearing lever F thus taking the strain from the bolt I, which is a weak point in other tools of this class. Said lever F is also provided with a steel plate K having a cutting edge *a*. The before mentioned bolt I passes freely through a bore in the lever A and its threaded portion engages the thread of the bore in the before mentioned lever F thus forming a durable hinge joint for the two levers. The forward end of this cutting blade as will be seen is slightly extended forming a shoulder *f* to hold wire against while shearing. The forward end of the lever F is oval and is provided with inclines *b* which serve to clamp the wire against the shoulder *c* when said lever is closed. The space formed between the end of the before mentioned lever and the shoulders *c* in the back of the prong is somewhat larger at the base than at the top. Thus varying sizes and thicknesses of wire are firmly secured without adjusting either of the levers. The same may be said of the shoulders *d* and *e* which shoulders are particularly desirable in attaching wire netting and wire boards, said wire being clamped therein.

Upon each side of the lever A, I provide a measuring scale M and N. The scale M as will be seen with reference to Figs. 1 and 2, is laid out in inches for a distance of two feet, while the scale N upon the opposite side is divided into spaces of three inches. These two scales are very desirable and important

in connection with a tool of this class, as they greatly assist in laying out the height of posts, and also in laying out the distance between the wires upon said posts.

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

1. In a combined tool of the class described the combination with an operating lever, of a clamping and shearing lever hinged thereto, a pointed single prong extending from said lever of an equal length therewith and provided with a striking head E, a clamping space of a varying width between the back of said prong and the corrugated end of the clamping lever, substantially as and for the purpose specified.

2. In a wire fence tool of the class described the combination of an operating lever, a series of teeth upon each side of the end of said lever, a pointed prong extending out and forward near the end of the lever and of an equal distance therewith, and provided with a striking head a clamping lever, pivoted to said operating lever a shearing blade upon each of said levers, a clamp formed between the clamping lever and the before mentioned prong.

3. In a wire fence of the class described the combination with hinged operating levers, of shearing plates secured to each, a hub H upon one of said levers projecting into a socket of the other lever and forming a bearing and provided with a securing bolt I, a series of teeth upon each side of one of said levers, and a prong having a striking edge as described.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 6th day of March, A. D. 1895.

HENRY M. CHIPMAN.

Witnesses:

C. M. NEWMAN,
R. H. NEWMAN.