

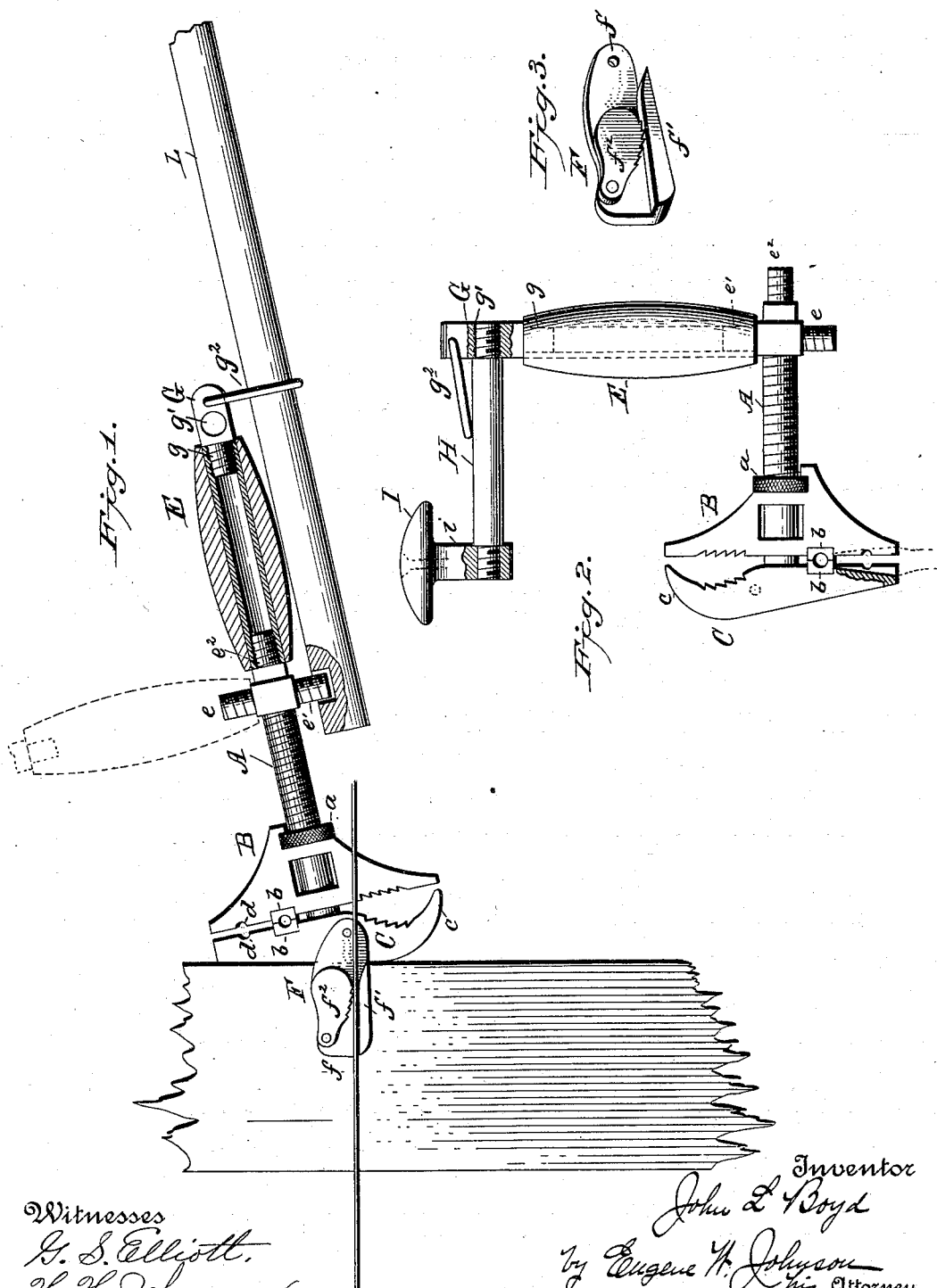
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Patented Apr. 17, 1900.

J. L. BOYD.  
COMBINATION TOOL.

(Application filed Sept. 13, 1899.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN LYNN BOYD, OF ROSEBUD, ILLINOIS.

## COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 647,799, dated April 17, 1900.

Application filed September 13, 1899. Serial No. 730,372. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LYNN BOYD, a citizen of the United States, residing at Rosebud, in the county of Pope and State of Illinois, have invented new and useful Improvements in Combination-Tools, of which the following is a specification.

This invention relates to certain new and useful improvements in combination-tools.

The object of the present invention is to provide a combination-tool which comprises a wrench of the construction shown, the shank thereof having projecting portions at right angles therewith with which a handle may be placed in engagement, so that the implement may be used for several purposes—for instance, as a brace, wire-stretcher, or as a wrench with a handle on a line with the shank or at right angles therewith—and as will be hereinafter fully set forth and specifically pointed out in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a side elevation, partly in section, showing the combination-tool applied as a wire-stretcher. Fig. 2 is a view showing the parts arranged to form a brace, and Fig. 3 is a detail perspective view of the wire-clamp detached.

A indicates the threaded shank of the wrench, and with said threaded portion engages a nut *a*, which also engages the adjustable head or jaw B, the other head or jaw C being rigidly attached to the shank. On one side of the shank the jaws are constructed to provide a pipe-wrench and a claw *c*, the same as the claw of a hammer. The straight or flat sides of the jaws are recessed or countersunk to receive dies *b b*, and beyond said countersunk portion are recesses *d d* with semicircular or concave sides. The flat ends of the jaws have a tapered recess with angular sides, within which are adapted to be placed a tap or boring-tool, as an auger. The shank A has secured thereto threaded offsets *e e'*, which project at right angles from the shank and on a line with the fixed jaw. The end of the shank extends beyond these offsets and has a threaded portion which is of less diameter than the shank.

E refers to a handle made up of a metallic inner portion or tube the opposite ends of which are internally threaded, and said tube

passes through the wooden portion of the handle. The threads of the tube are adapted to receive the end *e'* of the shank A, or said handle may be placed in engagement with either of the offsets *e e'*, so as to be secured at right angles to said shank.

G refers to a block which has a threaded portion *g*, which is adapted to engage with the internal threads of the handle E, and said part has an internally-threaded opening *g'* and may carry a ring *g''*, which ring provides a convenient means for hanging up the wrench and is also used with the combination-tool when the said tool is used for stretching wire. When it is desired to use the implement as a brace, the part G, either with or without the ring, is attached to one end of the handle and receives a bar H, to the other end of which is secured a swiveled handle I, the knob of which is pivotally attached to a block *i*, having therethrough an aperture to receive the opposite threaded end of the bar H. The threads on the end of the bar are adapted to engage with the threaded apertures in the handle, and when desired this bar may be used to provide an extension for said handle, which is desirable in stretching wire or turning heavy nuts.

In Fig. 3 of the drawings I have illustrated an attachment which is adapted to be pivotally connected to one of the jaws of the wrench, adjacent to the curved portion thereof, and said attachment consists of a plate *f*, having on one side a projecting portion *f'* and above said part a dog *f''*, which attachment is adapted to be used in conjunction with the wrench, and other parts, as shown in Fig. 1, as a wire-stretcher. This attachment may also be used as a wire-cutter by placing the wire in the recesses *d d* and turning the plate on its pivot.

When it is desired to stretch wire fencing, the parts may be arranged either as shown in full lines in Fig. 1, in which instance a rod or lever L is used, or, as shown in dotted lines, with the handle E, and the bar H, which is used as an extension thereof, may be employed.

In the drawings, Fig. 2 shows the parts assembled for use as a brace, and when used as a wrench the handle E is simply attached to the threaded part *e'* of the shank.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a tool of the class described, the combination of a shank having fixed and movable  
5 jaws which extend on opposite sides of the shanks and are of different configurations, the end of the shank farthest from the fixed jaws having three threaded extensions, two  
10 of which are at right angles with the shank and the other one on a line therewith, a handle having interiorly-threaded ends for engagement with either of said extensions, a  
15 part having a threaded portion for engagement with the end of the handle which is not in engagement with a threaded extension of the shank, said part having an aperture there-through, substantially as shown and for the purpose set forth.

2. In a tool of the class described, a shank having at one end a fixed jaw and at the other  
20 end threaded extensions two of said extensions projecting at right angles to the shank and in line with the fixed jaw, a handle the ends of which are internally threaded, a part  
25 G having an extension threaded for engagement with the handle and an internally-threaded aperture at right angles therewith and a ring carried by said part, substantially as shown and for the purpose set forth.

In testimony whereof I have hereunto set  
30 my hand in presence of two subscribing witnesses.

JOHN LYNN BOYD.

Witnesses:

W. H. WHITESIDE,  
J. W. CHESTER.