

(No Model.)

W. L. DUTCHER.
BOLT CUTTER.

No. 382,034.

Patented May 1, 1888.

FIG. 2.

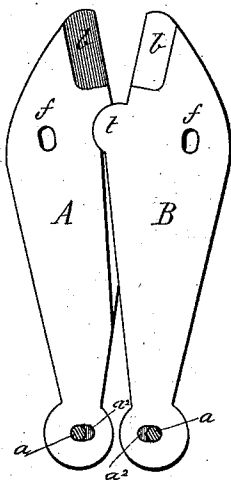


FIG. 1.

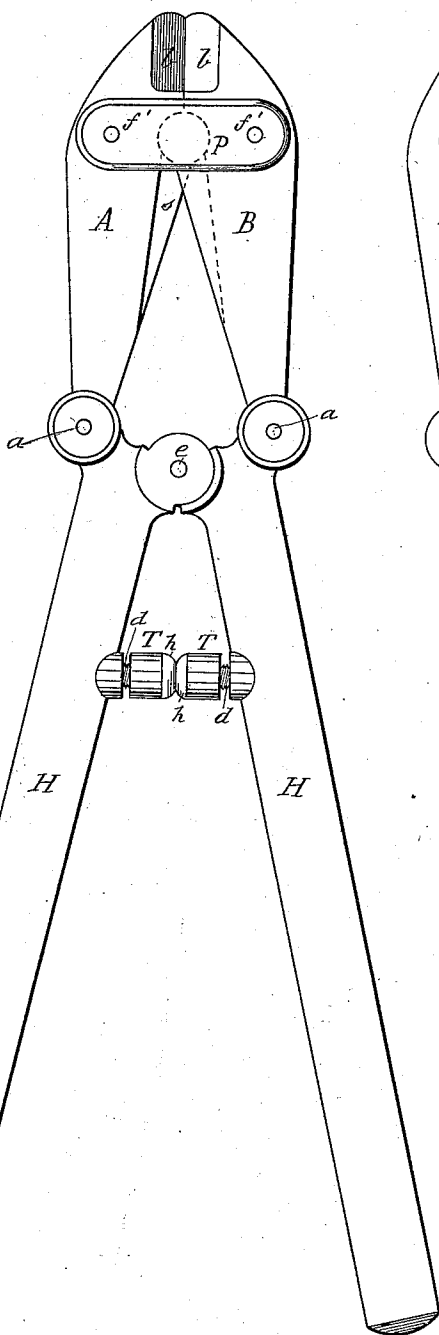


FIG. 3.

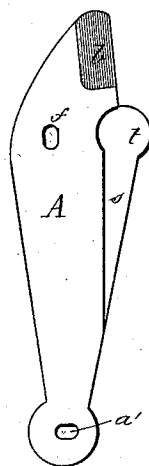


FIG. 5.

a²

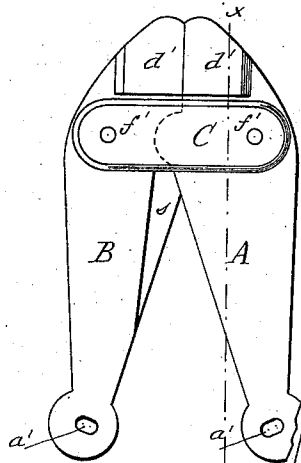


FIG. 4.

WITNESSES.

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WILLIAM L. DUTCHER, OF PATERSON, NEW JERSEY.

BOLT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 382,034, dated May 1, 1888.

Application filed April 13, 1887. Serial No. 234,659. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. DUTCHER, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Bolt-Cutters, of which the following is a specification.

My invention relates to that class of bolt-cutters in which compound levers are used.

It is my design in making the improvements herein described to provide a cutter which can be speedily and easily adjusted, so that it will adapt itself to the wearing away of the cutting-edges caused by use or the continued sharpening of the blades, and one which shall be simple in its construction and economical in manufacture. These objects I attain by the novel construction and arrangement of parts herein described, and shown in the accompanying drawings, in which—

Figure 1 is a plan of a cutter provided with my improvements, showing the jaws closed. Fig. 2 is a plan view showing the cutting-levers only, the jaws being open and the plate P removed. Fig. 3 is the same as Fig. 2, with the cutting-lever B removed. Fig. 4 is a back view of Fig. 2, the jaws being closed, and showing also the plate C. Fig. 5 is a perspective of the adjusting-piece, which is used to shift the center of the opening through which pass the bolts or pins which pivot the handles H to the levers A B.

A and B are the cutting-levers.

H H are the elbow operating levers or handles, pivoted together at *e* and to the cutting-levers at *a a*.

b b are the cutting surfaces or blades of the tool.

P and C are the front and back plates, which hold together and strengthen the cutting-levers A B. The plates P C are joined together by the pivots *f' f'*, which pass through the openings *f f* in the levers A B, the latter working upon said pivots as the jaws and the blades *b b* of the instrument are opened and closed.

T T are threaded thimbles adapted to be screwed upon the threaded studs *d d*, which project from the handles H H. The thimbles T T are provided with rubber or other elastic cushions *h h*, and may be of any of the approved forms now in use.

I am aware that cutting-tools provided with compound levers have been made before my invention of the improvements herein described, and I do not claim anything new in the general arrangement and operation of those levers; but I claim to have made certain improvements in the particular construction and arrangement of parts in such cutting implements.

In my improved cutter I make the openings *a'* in the ends of the levers A and B, through which pass the bolts or pins *a*, which pivot the cutting-levers to the operating-handles, elliptical in shape. The separable piece *a''* (shown in Fig. 5) is of such size and shape that when inserted in either end of the elliptical opening *a'* it will leave a circular opening, through which the pin or bolt *a* passes, as shown in Fig. 2. It will thus be seen that by changing the position of the piece *a''* from one end of the opening *a'* to the other the center of the opening for the pin *a* can be shifted inward or outward, thereby increasing or diminishing the length of the arc passed over by the end of the lever in opening and closing the jaws of the tool. When the cutter is first put in use, the piece *a''* is placed at the inner end of the opening *a'*, as shown in Fig. 2, where it remains until the thimble T has been screwed down as far as possible upon the studs *d d* in the usual course of regulating the cutter. The piece *a''* is then transferred to the outer end of the opening *a'*, and compensation for the continued wearing away of the blades *b* by wear or sharpening is made by means of the regulating device T, as before.

The levers A and B may be cast or stamped in single pieces, and the manner of making the handles and of pivoting them to each other and to the cutting-levers A B may be any of those adopted in the construction of compound-lever cutters.

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

1. In a compound-lever bolt-cutter, in combination with the handles H H, the cutting-levers A B, having their inner ends provided with the elliptical opening *a'* and adjusting-piece *a''*, the latter being of such size and shape that when placed in either end of said elliptical opening it will make and keep said opening

circular in form and adapted to shift the center of said circular opening inward or outward, substantially as described, and for the purposes set forth.

- 5 2. As a new article of manufacture, the compound-lever bolt-cutter herein described, consisting of the following elements, viz: the handles H H, pivoted to each other and to the cutting-levers A B, the latter being pivoted to
10 the plates P C and hinged to each other, and

being provided at their outer ends with the jaws *b b*, and at their inner ends with the elliptical openings *a'*, the said plates P C, and the adjusting-pieces *a*², all constructed and arranged substantially as described, and for the 15 purposes set forth.

WILLIAM L. DUTCHER.

In presence of—

MUNSON FORCE,

ROBERT E. VAN HAMBERG.