

L. C. LAMBERT.
 ROD AND BOLT CUTTER.
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1,045,414.

Patented Nov. 26, 1912.

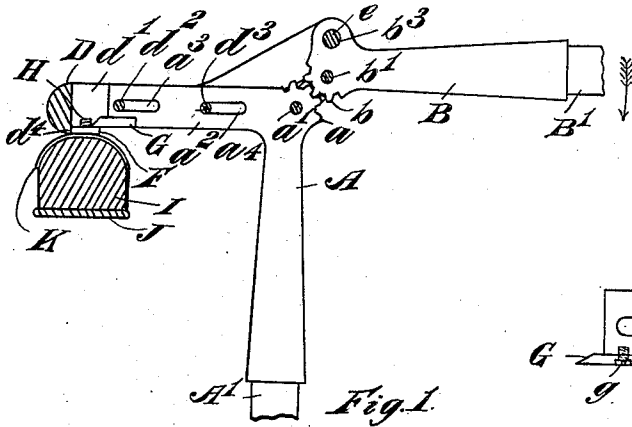


Fig. 1.

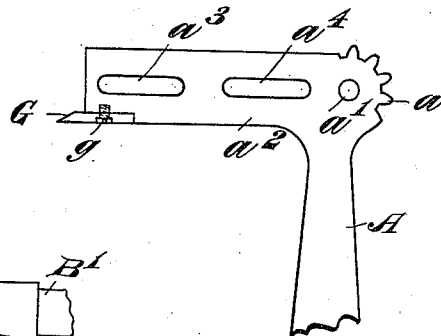


Fig. 4.

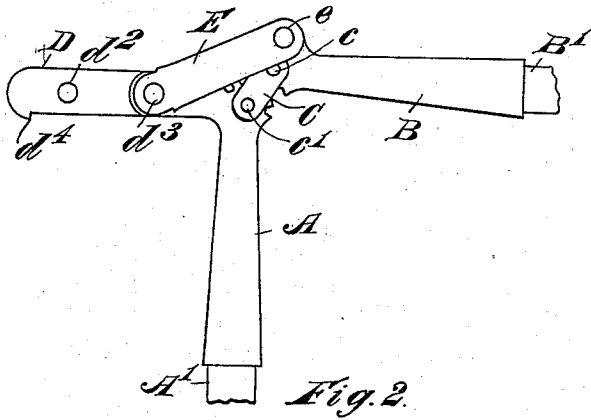


Fig. 2.

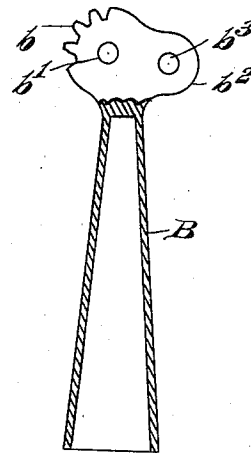


Fig. 5.

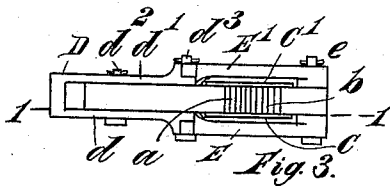


Fig. 3.

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UNITED STATES PATENT OFFICE.

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ROD AND BOLT CUTTER.

1,045,414.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LEWIS C. LAMBERT, a citizen of the United States, residing at Tewksbury, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Rod and Bolt Cutters, of which the following is a specification.

This invention relates to rod and bolt-cutters, as for removing the superfluous or projecting parts of carriage-bolts and tire-bolts after the nuts are turned to place or for cutting rivets to the proper length after inserting and before heading them.

The object of said invention is to provide a cheap and powerful portable cutter, which may be quickly applied and operated.

In the accompanying drawing, Figure 1 is a side elevation of my improved cutter, partly in section on the line 1 1 in Fig. 3, showing also in vertical cross-section, a wheel-tire, rim and clip with bolt and nut; Fig. 2, a side elevation of said cutter, in both of these figures the cutter being represented as in operative position and the handles being broken away; Fig. 3, a plan of said cutter, the jaws being closed; Fig. 4 an enlarged side elevation of the cutter and its supporting arm and connected handle-socket; Fig. 5, an enlarged vertical section of the other handle-socket and the parts integral therewith.

A indicates a socket adapted to receive a handle A^1 and provided with a segmental gear a integral therewith. B denotes the other handle-socket adapted to receive a handle B^1 and with a gear segment b . The handles $A^1 B^1$ are broken away to save room but will be of sufficient length to secure the proper leverage and may be made of wood, the other parts of the device being metallic. The gear segments $a b$ are held in engagement with each other by links $C C^1$, the ends of which are pivoted to said gear-segments by pins $c c^1$ which pass through said links and through holes $b^1 a^1$ concentric with said gear-segments. The socket A has an arm a^2 integral therewith and extending therefrom at about right angles, said arm being provided with longitudinal slots $a^3 a^4$.

A U-shaped slide D has parallel sides $d d^1$ which have a sliding fit on the arm a^2 , the movement of said slide on said arm a^2 being limited and directed by pins $d^2 d^3$ which pass through said slide and through the slots a^3

a^4 in said arm a^2 . The socket B is provided with a boss or enlargement b^2 having a hole b^3 so arranged that the straight line connecting the holes $b^1 b^3$ is substantially at right angles to the axis of said socket B. The projection b^2 is connected to the slide D by links $E E^1$ arranged on opposite sides of the device, said links being pivoted at one end on the pin d^3 above mentioned and at their other ends by another pin e which passes through said links $E E^1$ and through the hole b^3 above mentioned.

It is evident that when the handle B^1 is turned downward in the direction of the arrow in Fig. 1, it will cause the slide D to be drawn to the right.

The closed outer end of the socket D has on its under side a downwardly projecting rib d^4 adapted to rest against a side of a nut F (Fig. 1) and the arm a^2 carries a cutter or chisel G secured in any convenient manner as by one or more screws g (Fig. 4) in such a manner that the lower surface of said cutter will be on a level with the adjacent side of the slide. When the handles $A^1 B^1$ are swung apart, as shown in Fig. 1, the side or edge of the nut F may be placed against the rib d^4 allowing the end of the bolt H which projects above said nut to be inserted in the opening between said cutter and the closed end of the slide so that when the handle B^1 is turned downward against or in proximity to the handle A^1 , the end of the bolt will be crowded against the cutter and sheared off.

In Fig. 1, the felly I; tire J and clip K of a carriage-wheel are shown with the bolt about to be operated upon.

This cutter squares the nut, that is, when the cutter is applied to the nut and stands at right angles to the felly, the nut is turned by the pressure of the slide and chisel until one side of the nut is at right angles to the felly and the bolt is cut smooth and close to the nut, leaving a sufficient burr to prevent the nut from turning and dropping off, and rendering unnecessary the usual smoothing of the end of the bolt by the use of files.

I claim as my invention:—

1. The combination of suitable handles provided with gear-segments, links pivoted to said segments at the centers of the same and holding said segments in engagement with each other, one of said handles having

an arm rigidly secured thereto, a slide supported on said arm, other links connecting said slide to the other of said handles, said slide and arm being moved longitudinally relatively to each other by the movement of said handles and said last-named links and a cutter carried by one of said longitudinally movable parts.

2. The combination of suitable handles provided with gear-segments, links pivoted to said segments at the centers of the same and holding said segments in engagement with each other, one of said handles having an arm rigidly secured thereto and provided with longitudinal slots, a slide supported on

said arm and guided thereon by pins secured in said slide and entering said slots, other links connecting said slide to the other of said handles, said slide having a projecting abutment to engage a nut, and a cutter carried by said arm and caused to approach said abutment by the movement of said handles and said last named links. 20

In witness whereof, I have affixed my signature, in presence of two witnesses.

LEWIS C. LAMBERT.

Witnesses:

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WILLIAM J. McGRATH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."