

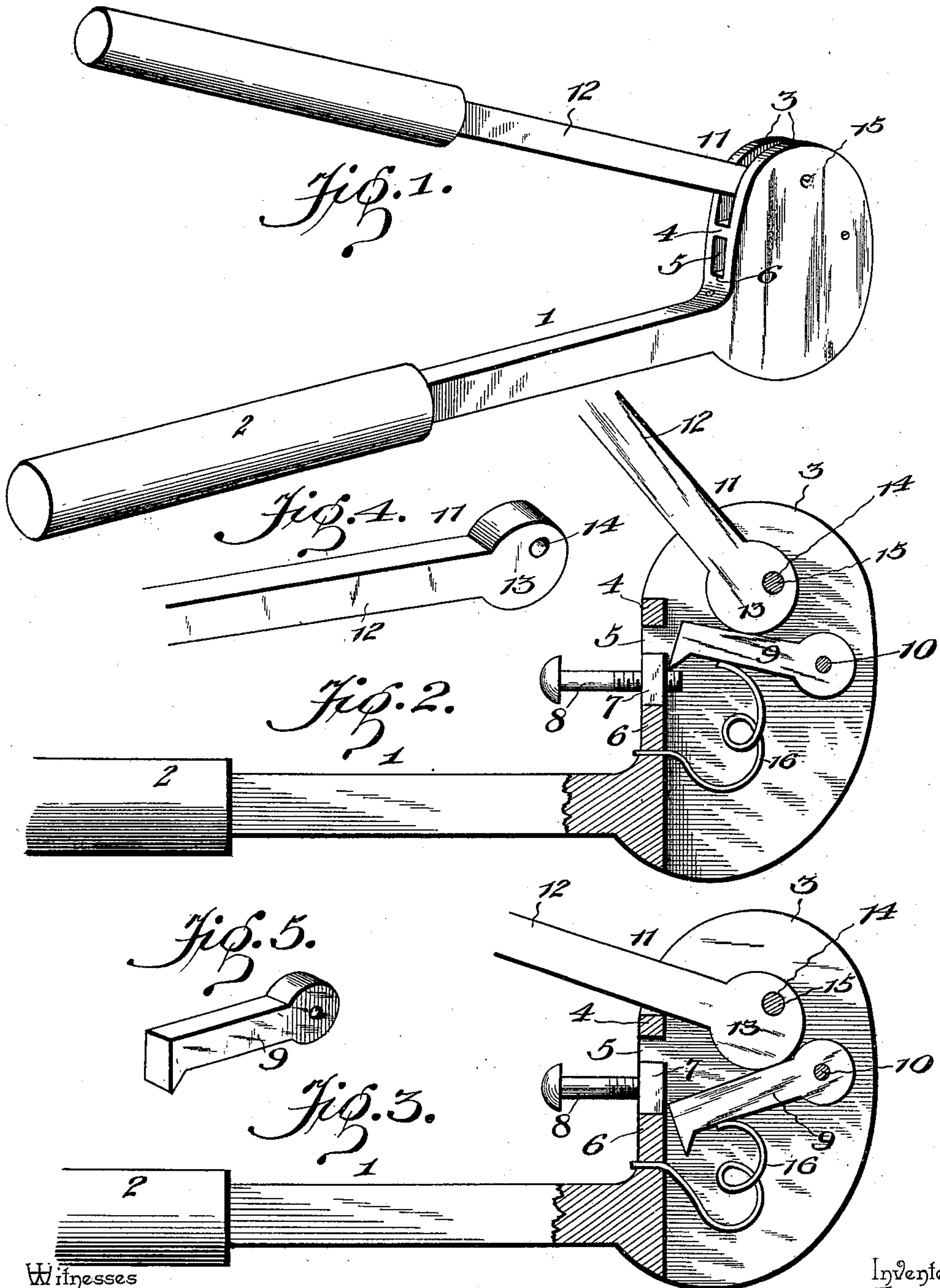
No. 616,105.

Patented Dec. 20, 1898.

O. A. HOAK.
BOLT CUTTER.

(Application filed Mar. 18, 1898.)

(No Model.)



Witnesses
A. Roy Appleman
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UNITED STATES PATENT OFFICE.

ORIAN A. HOAK, OF STERLING, ILLINOIS.

BOLT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 616,105, dated December 20, 1898.

Application filed March 16, 1898. Serial No. 674,096. (No model.)

To all whom it may concern:

Be it known that I, ORIAN A. HOAK, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented a new and useful Bolt-Cutter, of which the following is a specification.

The invention relates to improvements in bolt-cutters.

10 The object of the present invention is to improve the construction of bolt-cutters and to provide a simple, inexpensive, and efficient one adapted for use on tire and other bolts and capable of cutting a bolt off close to its nut.

15 A further object of the invention is to provide a bolt-cutter which may be conveniently operated adjacent to the felly of a wheel and in which the knife or cutter may be readily removed when it is necessary to sharpen the same.

20 Another object of the invention is to arrange the parts so that the knife may be readily viewed during the cutting operation thereof and also to prevent the cutting edge from coming in contact with any other part of the device during the cutting operation, thereby preventing the knife from becoming dull or being otherwise injured by such contact.

25 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

30 In the drawings, Figure 1 is a perspective view of a bolt-cutter constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same, the cutter being in position for cutting a bolt. Fig. 3 is a similar view of the operating mechanism, illustrating the position of the cutter after it has engaged a bolt. Fig. 4 is a detail view of the cam-lever. Fig. 5 is a similar view of the cutter or knife.

35 Like numerals of reference designate corresponding parts in all the figures of the drawings.

40 1 designates a shank or bar, provided at one end with a handle 2 and having a pair of parallel sides or ears 3 at its other end to form a casing. The sides or ears 3 are connected adjacent to the shank by an integral cross-piece 4, and an opening 5 is formed between

the same and an arm or wall 6 for the reception of a nut 7 and a bolt 8.

55 The inner face of the arm or wall 6 is straight, and the bottom of the opening 5, which is offset from the shank or bar 2 by the arm or wall 6, forms a seat for the nut 7, and the end of the bolt is operated on by a pivoted cutter or knife 9, adapted to sever the end of the bolt from the body portion thereof at a point close to the face of the nut, and owing to its swinging movement and its arrangement it is adapted to engage the face of the nut during the cutting operation and to swing past the nut-opening of the casing without contacting with the same.

60 The knife or cutter consists of a straight body portion disposed longitudinally of the bolt-cutter and provided at its inner end with a tapering cutting-tooth which extends from one side of the knife or cutter, and the outer end of the latter is enlarged and perforated for the reception of a pivot-bolt 10, which may be readily removed when it is desired to regrind the cutter or knife.

75 The cutter or knife is actuated during the cutting operation by an eccentrically-pivoted cam-lever 11, consisting of a shank or bar 12, provided at one end with a handle and having a substantially circular head 13 at its other end, the head being provided with an eccentrically-arranged perforation 14 for the reception of a pivot-bolt 15, which is readily removable. The cam-lever engages the back edge of the cutter or knife, and it is capable of exerting a powerful downward pressure on the same sufficient to sever the end of a bolt readily. After the cutting operation has been completed the knife or cutter is swung upward and returned to its initial position by a coiled spring 16, which operates automatically when the knife or cutter is released by the cam-lever. One end of the coiled spring 16 bears against the lower edge or face of the cutter or knife and the other end is secured in a perforation of the arm or wall 6 of the casing; but it may be attached to the latter in any other suitable manner.

80 The invention has the following advantages: The nut-opening of the casing is adapted to receive various sizes of nuts, and as the shank or bar 1 and the cam-lever extend from opposite ends of the casing they are adapt-

ed to receive a felly between them, so that the device can operate conveniently on a wheel to trim the tire-bolts thereof. The cutter or knife, which is pivoted at one end, 5 has a swinging or circular motion, and it is adapted to cut a bolt off close to the nut, and it will not slip off the nut until the bolt is cut. The nearer the bolt is cut off to the nut the harder the knife or cutter presses toward the 10 latter, and it is adapted in cutting off a bolt to give a neat and even finish. The device is adapted to be used with either side or end up, and when it is arranged as shown in the accompanying drawings the operator is able 15 to see the knife during its operation.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

20 What I claim is—

1. A device of the class described, comprising a casing provided at its inner edge with a nut-opening, a shank extending from the casing at one side of the nut-opening, a cam-lever 25 fulcrumed in the casing and extending therefrom at the other side of the nut-opening, a knife disposed longitudinally of the

device, pivoted at its outer end and provided at its inner end with a cutting-tooth extending from one side of it and arranged to swing 3 past the nut-opening, said knife being arranged to be engaged by the cam-lever, and a spring for returning the knife to its initial position, substantially as described.

2. A device of the class described comprising a pair of ears forming the sides of the casing, a shank or bar extending from the sides or ears at one end of the casing, the arm or wall 6 arranged at the inner edge of the casing, adjacent to the shank and forming a seat 4 for a nut, the cross-piece connecting the sides or ears above the arm or wall to form a nut-opening, a knife pivoted between the ears and arranged to swing past the nut-opening, and a cam-lever fulcrumed between the ears 4 and engaging the knife, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ORIAN A. HOAK.

Witnesses:

M. D. JOHN,

J. C. WINTERS.