

(No Model.)

J. H. OSBORNE.
BOLT CUTTER.

No. 569,661.

Patented Oct. 20, 1896.

Fig. 1.

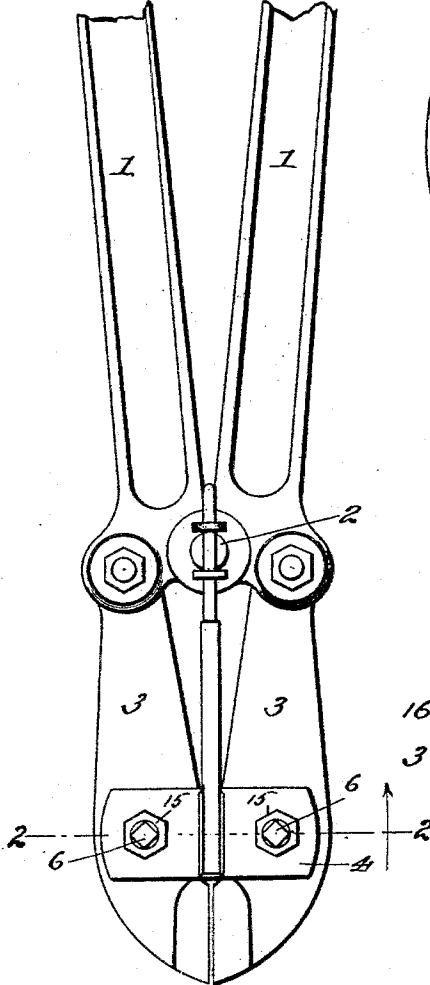


Fig. 3.

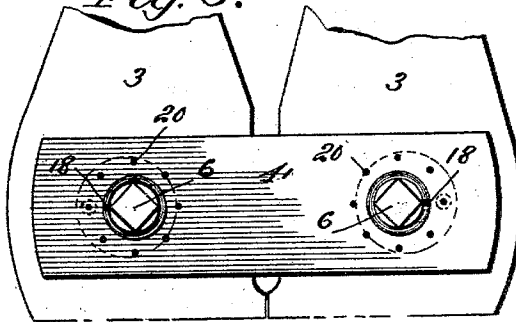


Fig. 4.

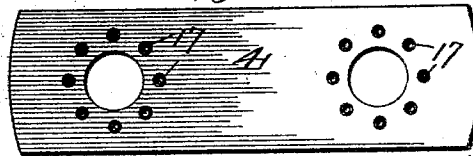


Fig. 5.

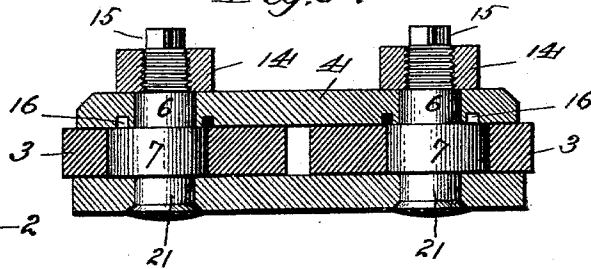


Fig. 2.

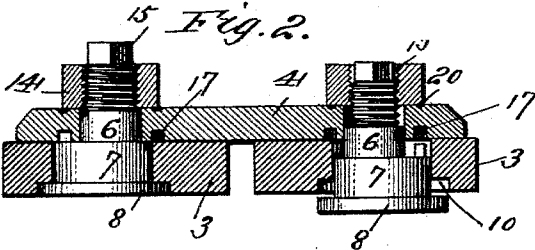
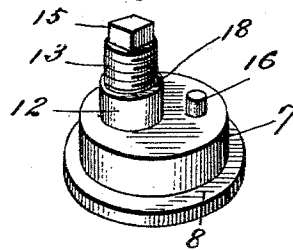


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. OSBORNE, OF ANDERSON, INDIANA.

BOLT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 569,661, dated October 20, 1896.

Application filed February 26, 1896. Serial No. 580,797. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. OSBORNE, a citizen of the United States, residing at Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Bolt-Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a new and improved bolt-cutter; and it has for its object to provide means for readily adjusting the cutting-blades in order to compensate for the wearing of their cutting edges.

Another object of the invention is to provide means whereby the amount of adjustment of each blade toward or from the center may be accurately gaged.

The invention consists in the novel combination and arrangement of parts hereinafter described, and particularly pointed out in the claims appended.

In the drawings, Figure 1 is an elevation of a bolt-cutter; Fig. 2, a cross-sectional view on line 2 2 of Fig. 1; Fig. 3, a detail view showing the means for connecting the cutting-blades; Fig. 4, a detail of one of the connecting-bars; Fig. 5, a cross-section of a modified form of the adjusting means. Fig. 6 is a detail view of the adjusting-bolt.

Referring to the various parts by numerals, 1 1 designate the handles of the cutter, the lower ends of which are pivoted together at 2. The outwardly-extending arms of said handles are pivoted to the upper ends of the cutter-blades 3 3. These blades are pivotally secured to the under side of a connecting-plate 4 by means of two bolts 6 6, which pass through the plate at an equal distance from the middle thereof. These bolts are each formed with an enlarged eccentric portion 7, and on the base of this eccentric portion is formed an outwardly-extending annular flange or enlargement 8. The eccentric portion 7 of the bolt fits a circular opening in the blade and the enlarged portion thereof fits within a counterbore 10 of the blade. The bolts are each formed with the smooth portion 12, which extends from the eccentric portion through the strap 4, and from this smooth portion a threaded portion 13 extends for the

reception of a nut 14, and extending from the threaded portion is a squared portion 15 for the reception of a wrench for a purpose hereinafter described.

Extending from the eccentric portion of the bolt is a short pin 16, which fits in any one of a series of recesses 17, formed in the under side of the plate or strap 4. On the outer side of this strap, immediately opposite each of the holes 17, is a suitable permanent mark or indentation 20, which marks indicate the location of each of the recesses 17. On the bolt 6, adjacent to the pin 16, is a suitable mark or indentation 18, which indicates the location of the pin 16 upon the eccentric.

The operation of this adjusting mechanism is very simple, and is as follows: The nuts 14 are loosened and the bolts 6 partly slid out of the cutter-blades and their connecting-strap until the pins 16 are out of engagement with recesses 17, as shown on the right side of Fig. 2. The bolts are then revolved by means of a suitable wrench engaging the square portion, thereby turning the eccentrics in the openings in the cutting-blades until the desired adjustment of the blades is obtained. By means of the mark 18 on the bolt and the marks 20 upon the bar or plate 4 the exact location of pin 16 of each bolt may be accurately noted, and, as is manifest, the position of the two eccentrics may be made identical, thereby obtaining an accurate adjustment of the blades.

If desired, two bars or plates may be employed to connect the cutting-blades on each side thereof, as shown in Fig. 5. In this construction the eccentric is formed with a circular portion 21, which forms the head of the bolt and fits within a circular opening in the bar 23, which connects the blades 3, its outer end being riveted to the plate, in order to secure the bolt to the plate. The center of the portion 21 is axially in line with the center of the smooth portion 12 of the bolt, in order that the bolt may be revolved to secure the proper adjustment of the blades.

It will be seen that I provide a very simple adjusting mechanism which may be readily and accurately operated to adjust the cutting-blades.

It will also readily be seen that by means of

the peculiarly-constructed bolts 6 the blades 3 may be pivotally connected by means of a single plate or bar 4.

Having thus fully described my invention, what I claim is—

1. A bolt-cutter consisting of a pair of cutting-blades, operating-handles pivoted thereto at the upper ends thereof, a plate, bolts pivotally connecting the blades to said plate, each of said bolts consisting of an eccentric portion which fits within a circular opening in a blade and a smaller threaded portion which extends through the plate, a nut adapted to be secured upon said threaded portion, an outwardly-extending enlargement carried by the eccentric and adapted to secure the blade to the plate, and a projection upon the eccentric adapted to enter one of a series of recesses formed in the inner side of the connecting-plate, substantially as described.

2. In a bolt-cutter, the combination of a pair of cutting-blades, operating-handles therefor, a plate, bolts pivotally connecting the blades to the plate, each bolt consisting of an eccentric portion which fits a circular opening in a blade, a smaller threaded portion which extends through the plate and is provided with a securing-nut, a projection on the eccentric adapted to fit one of a series of recesses formed in the inner side of the plate, a permanent mark upon the bolt outside of the plate, permanent marks on the outer side of the plate corresponding to the recesses in the inner side of the plate, and means for adjusting the eccentric and for securing the blades to the plate, substantially as described.

3. In a bolt-cutter, the combination of a pair of cutting-blades, operating-handles therefor, a connecting-plate, bolts pivotally connecting the blades to the plate, each of said bolts consisting of an eccentric portion adapted to fit a circular opening in a blade, a threaded smaller portion extending through the plate, a nut to fit said threaded portion and secure the bolt in place, a projection upon the eccentric portion adapted to enter one of a series of recesses in the inner side of the plate, an enlarged portion formed on the eccentric and adapted to fit a recess formed in the blade, and a squared portion formed on said bolt, substantially as described and for the purpose set forth.

4. A bolt-cutter consisting of a pair of cutting-blades, operating-handles pivoted to the upper ends of said blades, a plate, bolts pivotally connecting the blades to said plate, each of said bolts consisting of an eccentric portion which fits within a circular opening in the blade, and a smaller threaded portion which extends through the plate, a nut adapted to be secured upon said threaded portion means for securing the blades to the plate and for retaining them upon the bolts, and a projection upon the eccentric adapted to enter one of a series of recesses formed in the inner side of the connecting-plate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. OSBORNE.

Witnesses:

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