

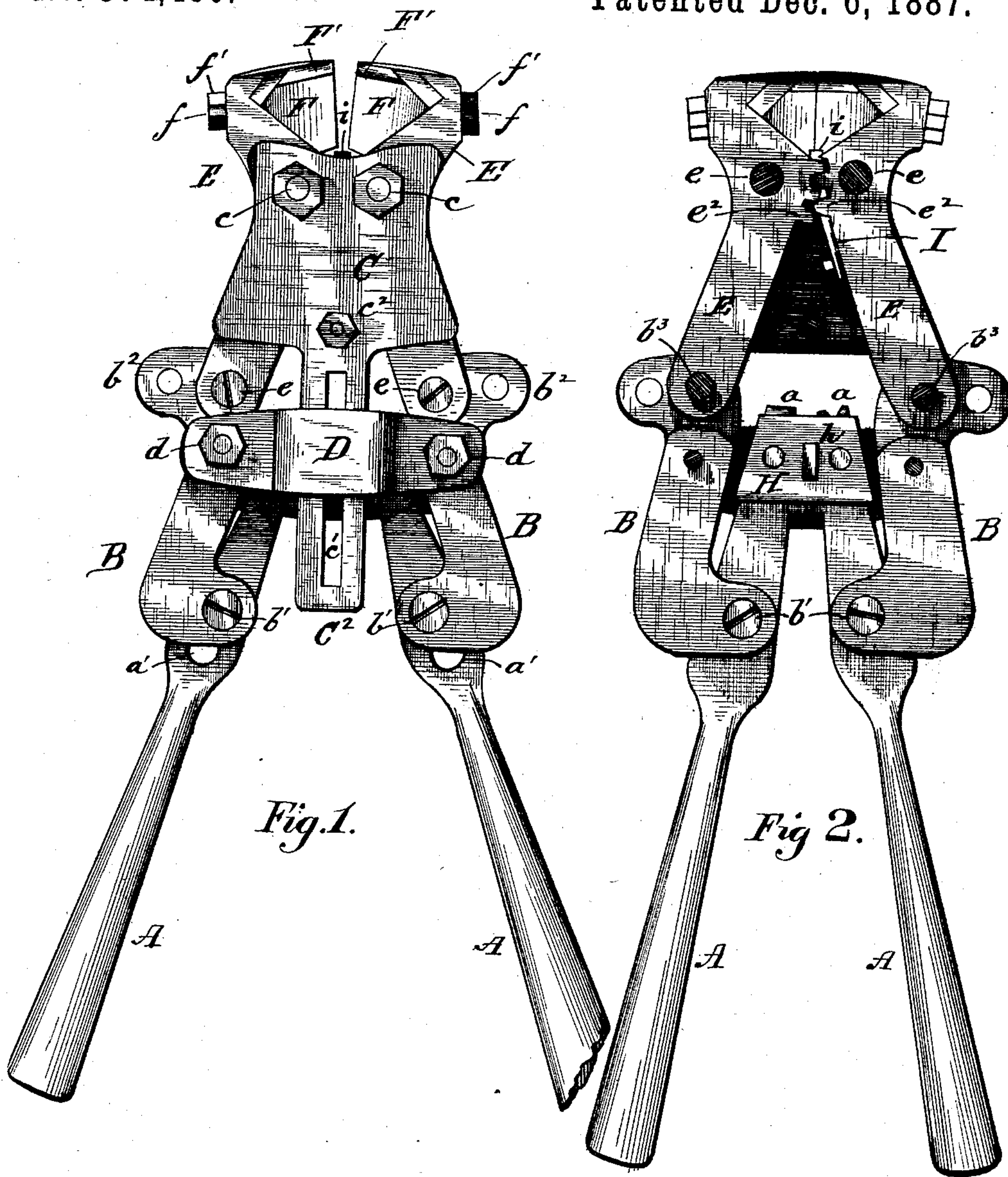
(No Model.)

2 Sheets—Sheet 1.

J. KLEIN.
ROD CUTTER.

No. 374,480.

Patented Dec. 6, 1887.



WITNESSES

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INVENTOR

Joseph Klein
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

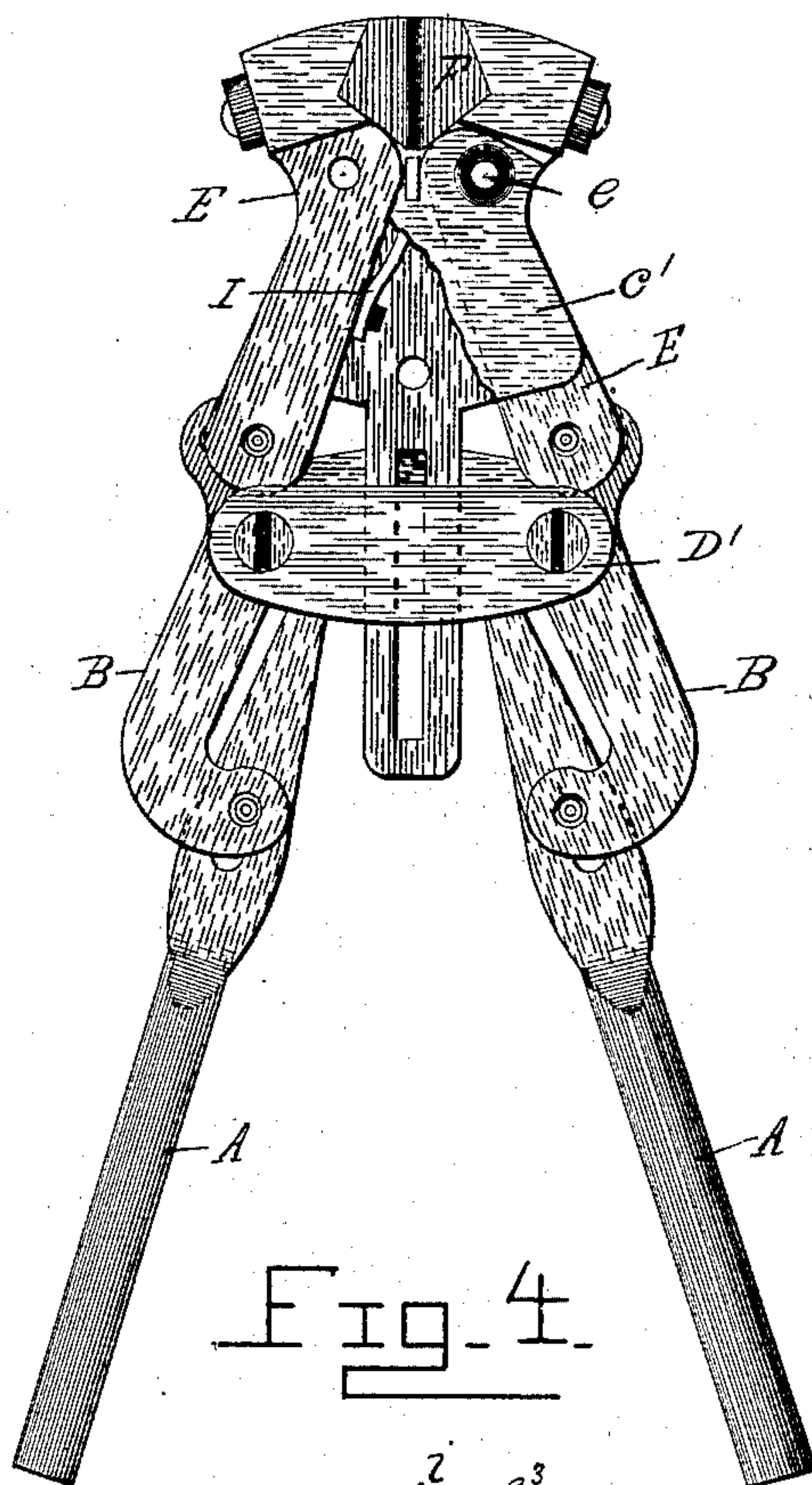
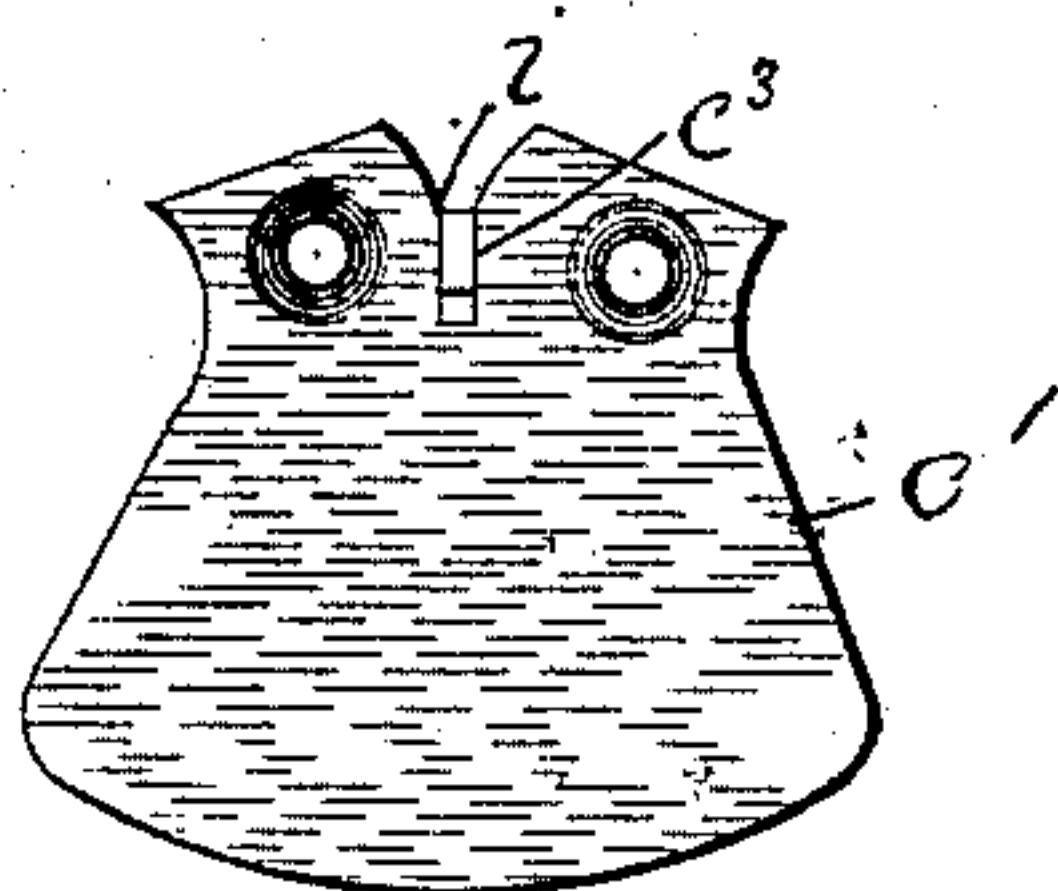


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH KLEIN, OF COUDERSPORT, PENNSYLVANIA.

ROD-CUTTER.

SPECIFICATION forming part of Letters Patent No. 374,480, dated December 6, 1887.

Application filed June 21, 1887. Serial No. 241,999. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KLEIN, a citizen of the United States, residing at Coudersport, in the county of Potter and State of Pennsylvania, have invented certain new and useful Improvements in Rod or Bolt Cutters; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification.

My invention has relation to bolt or rod cutters of that class which is particularly adapted and designed for removing the extremities of bolts after the nuts have been placed in position thereon.

My invention therefore consists in the construction, combination, and arrangement of parts, more fully described hereinafter, and specifically pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a plan view, and Fig. 2 the same view, with the top plate removed, of my improved cutter. Fig. 3 is a plan view of the opposite side of the cutter from Fig. 1, and Fig. 4 is a detail view.

A A designate the handles, which are formed at their upper ends with meshing gear-teeth $a\ a$, and are pivotally connected to a plate, H, having a lug, h , on one side thereof. A like plate may, if desired and deemed expedient, be attached at the other side in like position, to more firmly hold the handles together.

B B are levers, having their lower L-shaped ends slotted to receive the handles A A, bolts or pins $b' b'$ passing through holes $a' a'$ in both the handles, and being securely fastened in the levers. The upper ends of the levers B B are L-shaped in the opposite direction from the lower sides, and are each provided with two bolt-holes, $b^2 b^3$.

The cutter-jaws proper consist of the levers E E, which are slotted at their lower ends to receive the upper ends of the levers B B, being attached thereto by bolts $e\ e$, which pass through the bolt-holes b^2 or b^3 , and their upper ends are provided with racks or gears $e^2 e^2$. The cutters F F are attached to the upper ends of the levers E E by means of bolts $f\ f$, which are attached to the rear side of the cutter and pass through holes in the ends of the levers E E, and are held in position by nuts $f' f'$.

These cutter-blades F F are formed with a shoulders, $F' F'$, which, when the tool is closed, abut against each other, and thus prevent the sharp edges from pressing against and thus dulling each other. Two plates, C C', serve to retain the levers E E in proper position by means of bolts $c\ c$, which pass through holes $e\ e$ in the levers and like holes in the plates. The upper plate, C, is formed with a tongue, C^2 , having slot c' , in which the lug h is allowed to rest. A bolt, c^2 , passing through the two plates and between the levers, holds the plates together near the lower end. Two plates, D D', carrying bolts $d' d'$, extend across from the levers B B, the bolts serving as pivotal points or bearings for the levers B B. A flat spring, I, is attached to the inner side of one of the levers E, its enlarged head i fitting between the upper part of the two levers and close to the cutter-blades, and serving as a guide to prevent a bolt which is to be cut from being placed between the levers below the cutter-blades, a slot, c^3 , in the plate C', being provided to retain the head of the spring in the desired position between the jaws and to cause the head to move up as the jaws are opened and to move down as the jaws are closed, so that as the blades are opened to permit the admission of a bolt the enlarged head i extends just to the lower edges of the blades, and as the blades are closed this head is pushed downward by the force of the levers and allows the cutter to operate. The racks or gearing on the levers A A and E E cause the levers to work more truly in unison, and thereby prevent the cutting from being done by one of the blades only.

It will be readily seen from the peculiar construction and operation of the arms and levers that the power applied to the handles will be enormously increased and multiplied at the cutter-blades, and therefore the handles A A can be made comparatively short for the very heaviest kind of work.

The cutter-blades F F being detachable, can be readily removed for sharpening, repairing, &c., and the shoulders $F' F'$, which prevent the two edges from cutting one another, will serve to retain the sharp cutting-edges for a long time, and thus save both time and money.

The two holes $b^2 b^3$ in the upper ends of the

levers^a B allow for compensating for any wear of the blades, and permit adjustment of the same by changing the bolts from one hole to the other.

5 What I claim as new is—

1. The combination, with a rod or bolt cutter, of a spring guide or follower placed below the jaws of the cutters to serve as a stop to regulate the position of the cutter upon the rod or bolt, said guide or follower moving up as the jaws are opened, and down as the jaws are closed, substantially as shown and described.
2. The combination, with handles A A and

levers B B and E E, of plate C, having tongue C², with elongated slot c', and plate H, having 15 lug or projection h, designed and adapted to move in said slot c', as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of 20 June, 1887.

JOSEPH KLEIN.

Witnesses:

M. A. BALLINGER,

A. A. CONNOLLY.