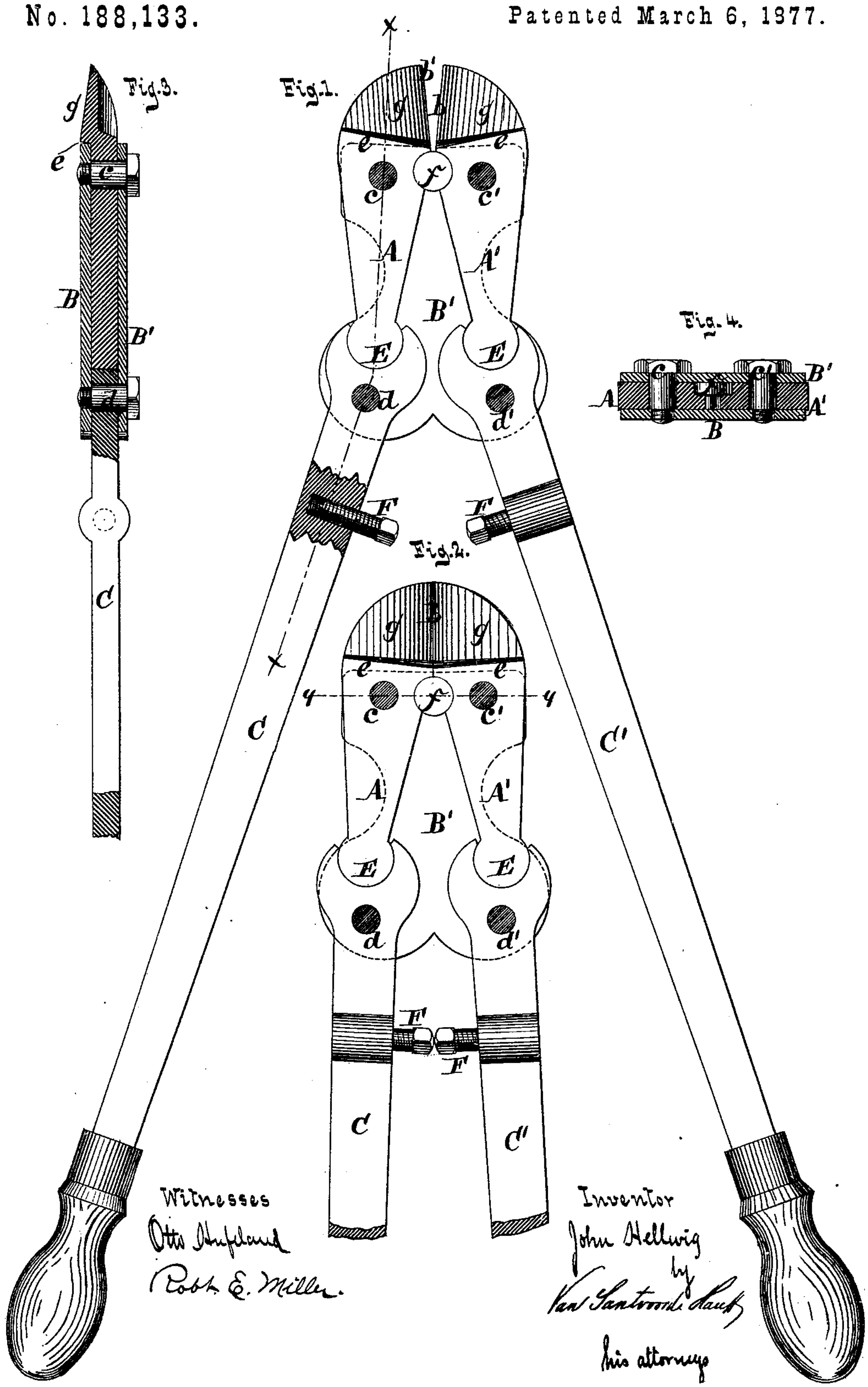
J. HELLWIG.

BOLT AND RIVET CUTTER.

No. 188,133. Patented March 6, 1877.



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UNITED STATES PATENT OFFICE.

JOHN HELLWIG, OF McGREGOR, IOWA.

IMPROVEMENT IN BOLT AND RIVET CUTTERS.

Specification forming part of Letters Patent No. **188,133**, dated March 6, 1877; application filed October 11, 1876.

To all whom it may concern:

Be it known that I, JOHN HELLWIG, of McGregor, in the county of Clayton and State of Iowa, have invented a new and useful Improvement in Bolt and Rivet Cutters, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view of my tool, partly in section, showing the positions of the parts when the cutting-jaws are open. Fig. 2 is a like view when the cutting-jaws are shut. Fig. 3 is a longitudinal section in the plane *x x*, Fig. 1. Fig. 4 is a cross-section in the plane *y y*, Fig. 2.

Similar letters indicate corresponding parts.

This invention relates to tools for cutting off bolts, rivets, wire, and other like articles of metal; and my invention consists in combining, with the cutting-jaws, which are pivoted to supporting-plates, and with the handles of the jaws, stops or shoulders, as will more fully hereinafter appear.

My invention also consists in combining, with the cutting-jaws, a washer arranged between the two cutting-jaws, the object of which will be fully hereinafter described.

In the drawing, the letters A A′ designate two jaws, which are provided with cutting-edges *b b′*, and are mounted on pivots *c c′*, between two plates, B B′. C C′ are two levers, at one end of which are formed handles, while at the other end they are mounted on pivots *d d′*, between the said plates B B′. The adjacent ends of the cutting-jaws A A′ and the lever-handles C C′ are made to interlock with each other by means of a ball-and-socket joint, E, or in any other suitable manner, so that by moving the handles the said jaws can be opened and shut, and by reason of the peculiar arrangement of the parts great force can be exerted on the jaws with little expenditure of power.

It will be noticed that by arranging the cutting-jaws A A′ between the two plates B B′ the jaws are prevented from being twisted out of place or moving laterally, and hence the cutting-edges of the jaws are not liable to pass each other when the jaws are strained.

On one side or surface of each of the cutting-jaws A A′ is formed a stop or shoulder, *e*, which projects over or beyond the adjacent edge of the plate B, and is so arranged that when the jaws are opened a certain distance the shoulders *e* strike against the said edge of the plate B, and by this means the outward movement of the jaws is regulated. Each of the lever-handles C C′ carries a set-screw, F, and when the said handles are shut for the purpose of closing the cutting-jaws A A′, these set-screws strike against each other, and serve to limit the inward motion of the handles and of the jaws.

It is obvious that the said screws F can be adjusted with proper relation to the cutting-edges *b b′* of the jaws, and changed when the said edges are ground.

One side or surface of the cutting-jaws A A′ is beveled or chamfered, as seen at *g*, Fig. 3, and the object of thus shaping the jaws is to permit of holding the tool at an angle to the work to be performed, and especially when the work is on a flat surface—as, for instance, when it is desirable to cut off a rivet from a flat plate, the rivet can be cut off smooth without its being necessary for the operator to lay the tool down on the plate, as heretofore, and hence the operator has his hands free, and is better enabled to perform the work.

Between the cutting-jaws A A′ is arranged a washer, *f*, which, in the example shown, has the form of a disk, and is let into a recess formed partly in one and partly in the other jaw. By the action of this washer *f* neither of the jaws A A′ is permitted to move alone or independently of the other, and thus the operation of cutting by the jaws is greatly facilitated. The said washer *f* is arranged in the plane of a line drawn through the pivots *c c′*, on which the cutting-jaws move, and it is concealed by the side plates B B′.

I prefer to construct the several parts of my tool, excepting the handles, of cast-steel, so that it is light, strong, and durable, the cutting-edges *b b′* being made somewhat stronger than the remaining parts, and the whole being put together by means of four pivots, *c c′ d d′*, it can be readily taken apart and put together.

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

1. The combination of stops or shoulders *e* with the cutting-jaws A A′ and the support-

ing-plates B B′, substantially as and for the purpose described.

2. The combination, with the cutting-jaws A A′, of a washer, *f*, arranged between the said jaws, substantially as described, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 3d day of October, 1876.

JOHN HELLWIG. [L. S.]

Witnesses:
CH. H. QUIGLEY,
T. O. JONES.