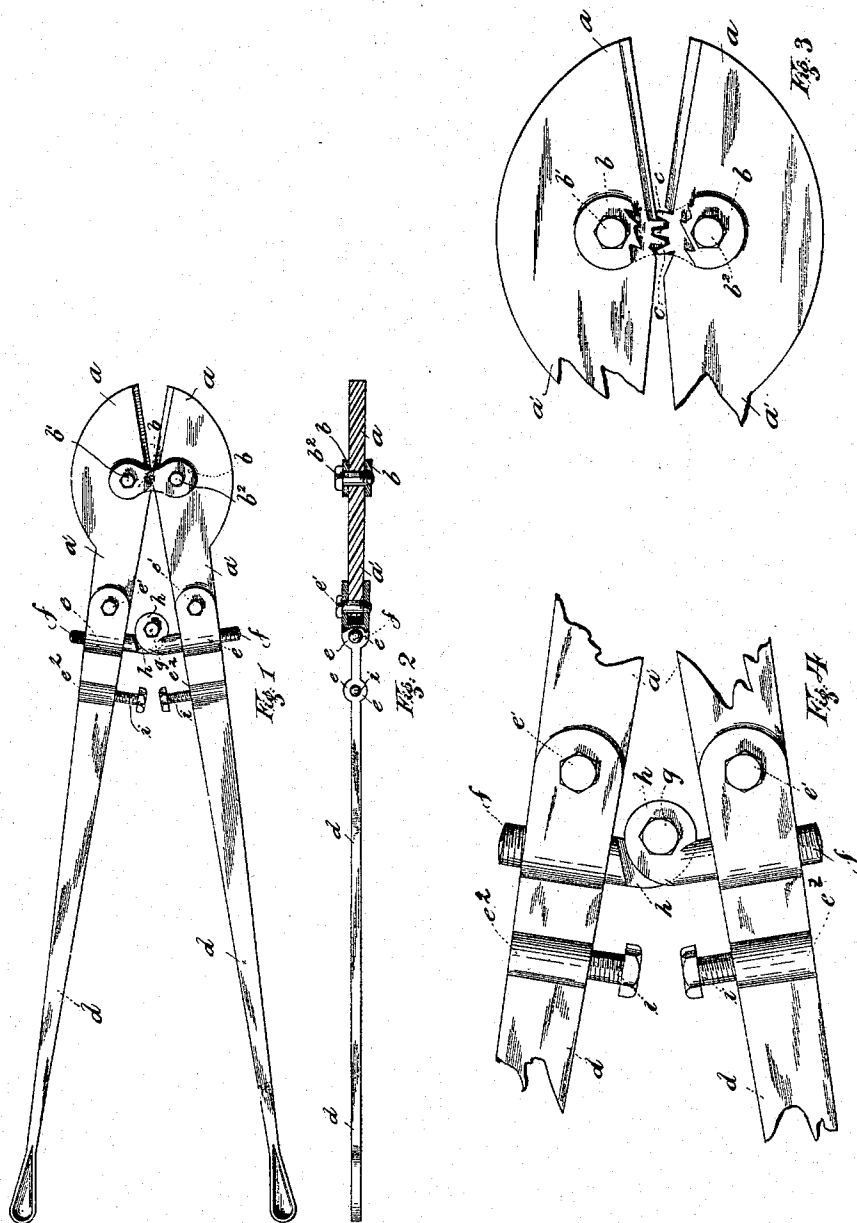


(No Model.)

W. MARCH.
BOLT OR ROD CUTTER.

No. 518,615.

Patented Apr. 24, 1894.



Witnesses:-
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UNITED STATES PATENT OFFICE.

WILLIAM MARCH, OF LONDON, ENGLAND.

BOLT OR ROD CUTTER.

SPECIFICATION forming part of Letters Patent No. 518,615, dated April 24, 1894.

Application filed January 9, 1894. Serial No. 496,313. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MARCH, mechanical engineer, a subject of the Queen of Great Britain and Ireland, and a resident of 69 Adelaide Road, South Hampstead, London, in the county of Middlesex, England, have invented a certain new and useful Improvement in Bolt or Rod Cutters, of which the following is a specification.

This invention has for its object the cutting of metal bolts and rods or other such like materials.

The tool consists of two flat steel lever cutting parts both of which are sharpened at their inner edges and are pivoted together by means of set screws b' b^2 which pass through them and through a pair of link plates b , one on each side of the blades. The movement of each cutter is made to correspond exactly with that of the other by their being furnished with teeth which allow them to be geared together just where the cutting edges end at c , the teeth of the same being covered by the link plates before mentioned. Each of these lever cutters is operated by a powerful lever handle d , fulcrumed at g , and acting on the end of the cutting lever. At the cutter end of each handle is a swivel joint e' , which receives the prolonged ends a' of one of the pivoted lever cutting parts a , which is secured thereto by a set screw or bolt. The handles are connected by a pair of jointed eyebolts f , which are screwed into or pass through them in such a way as to be adjustable. The set screw or bolt g , which unites these eye-bolts forms the fulcrum of the lever handles. The object of connecting these handles by jointed eye-bolts is to allow compensation for the wear of the cutters, the knife edges of which are brought nearer together in proportion as their prolonged ends a' are forced asunder by adjusting the eyebolts after liberating them by removing the fulcrum set screw g .

I will now describe the invention with reference to the accompanying drawings, in which—

Figure 1, shows a plan view of my bolt cutter. Fig. 2, shows a side view of Fig. 1, with the cutting blade shown in section. Fig. 3, shows an enlarged plan view of the head of the cutter, the link plate b , being broken off to display the cog teeth by which the action

of the blades is regulated. Fig. 4, shows an enlarged plan view of the cutter end of the handles d , with the fulcrum g , and the ends of the cutting levers a' , and the stop bolts i , i .

a , a , are short levers forming the cutting parts of the shears which are fulcrumed at b' , b^2 .

b , b , are link plates holding the blades a , a , in place by the bolts b' , b^2 .

c , c , are the cog teeth below the link plates b , b .

d , d , are the lever handles operating the ends of the lever cutters a .

e , e^2 , are eyes or sockets formed in the cutter end of the handles d , d , for receiving the ends f , f , of the fulcrum bolts g , and of the stop bolts i , i respectively. In these sockets female screw threads can be formed or bolts passing through the handles with a nut on each side can be employed.

e' , e' , are bolts forming the pivot connecting the handles to the cutters.

f , f , are two adjustable screws which engage with the holes e , e . On the ends of these screws, eyes h , h , are formed and receive the set screw g , forming the fulcrum of the first lever or handle.

i , i , are two set screws for regulating the travel of the handles d , d , and stopping them at the required distance.

Although this tool is on the "compound lever" or "combination of levers" principle, I do not claim this as a novelty, as I am aware that it was patented in 1870, No. 102,006, in 1872, No. 126,384, and again in 1877, No. 188,133. The compound lever was therefore no novelty in subsequent patents although claimed therein.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

In a bolt or rod cutter the combination with the two levers carrying the cutters of the eye bolts adjustably secured to the said levers and pivotally connected together, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

WILLIAM MARCH.

Witnesses:

HENRY E. DOD,
ALBERT W. MATHYS.