

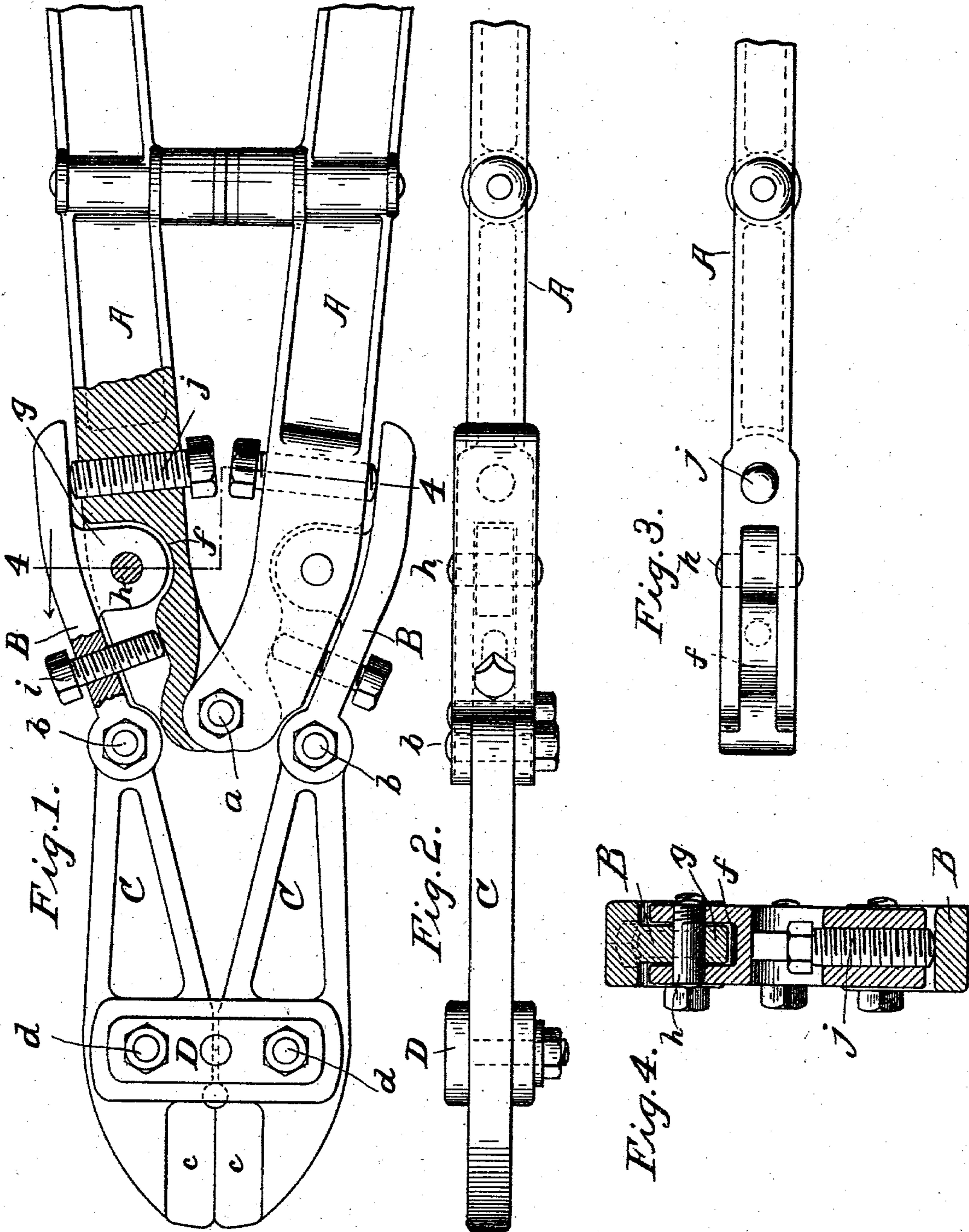
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PATENTED FEB. 17, 1903.

A. L. MOORE.
BOLT CUTTER.

APPLICATION FILED SEPT. 23, 1902.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

ARTHUR L. MOORE, OF SPRINGFIELD, MASSACHUSETTS.

BOLT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 720,835, dated February 17, 1903.

Application filed September 23, 1902. Serial No. 124,542. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR L. MOORE, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Bolt-Cutters, of which the following is a full, clear, and exact description.

This invention relates to improvements in bolt-cutters of the class having compound levers comprised in the operating-handles and the cutting members, and more particularly such as embody supplemental or adjusting levers mounted on the handle-levers and adapted to be adjustably set and secured as desired, so that the pivotal connections therewith of the levers which carry the cutters may have more or less distended relations to accord with the wear of the cutters. This general class of bolt-cutters is common and well known, and the present improvements relate particularly to the combination, with the handle-levers and the cutter-carrying levers, of the adjusting-levers and the means for effecting the adjustment thereof and maintaining them when adjusted against accidental displacement or derangement; and the object of the improvements relating to the portion of the implement mentioned is to provide the adjusting-lever appliance in and as a part of the bolt-cutter for its entirely efficient utilization in a manner of unusual simplicity, involving a minimum of parts, permitting the construction of the parts practicably and with inexpensive mechanical operations, permitting an arrangement which is direct, so that the assemblage is easy, as is also the replacement of a part should occasion therefor arise, and whereby the adjusting operations are not only most easily and quickly performed, but the adjusting-lever when brought to any position of adjustment will be held thereat by the abutment thereagainst of adjusting-screws bearing in opposite directions at sides oppositely disposed in relation to the point of pivotal connection of the adjusting-lever to and upon the handle-lever; and the invention consists in a bolt-cutter having combined therein, with the handle-levers and the cutter-levers, the adjusting-levers, with the means for effecting and holding such levers in their adjustments, all substantially as hereinafter

particularly described in connection with the accompanying drawings and as specified in the claims.

Reference is to be had in the accompanying drawings, in which—

Figure 1 is a side view of the bolt-cutter, considerable portions of the free ends of the handle-levers being broken off and a portion of one of the handle-levers being drawn in longitudinal section. Fig. 2 is a top edge or plan view of Fig. 1. Fig. 3 is a top edge or plan view of one of the handle-levers, the adjusting-lever being removed from connection therewith. Fig. 4 is a cross-sectional view, 4 4 indicating the line of section therefor.

Similar characters of reference indicate corresponding parts in all of the views.

In the drawings, A A represent the handle-levers, pivotally connected at their forward ends at *a*, and at the forward end of each handle-lever is an adjusting-lever B, the same being to all intents and purposes in the operation of the implement as a fixed and rigid part of the handle-lever, and to the forward ends of the adjusting-levers are pivotally connected, at *b*, the cutter-levers C C, these having the cutting edges *c c* at their forward portions, said levers C C being fulcrumed at *d d*, the fulcrums being held by a cross-strip D to insure the opening and closing of the cutter-levers equally. In this well-known form of bolt-cutter the opening of the handle-levers causes the moving together of the forward ends of the fixed levers B and the pivotal connections *b b*, causing the cutter-levers to swing on the fulcrums *d d* and the cutting ends *c c* to open from each other, and of course the closing together of the handle-levers effects the closing together of the cutters for their severing action on the protruding end of a bolt.

Each handle-lever A at its forward end portion is constructed of cross-sectionally outwardly-open trough shape, as indicated at *f*, and in the recess thus produced the tongue or ear-lug *g* is entered with a close fit, the pivot-bolt *h* forming the rocking connection between the adjusting-lever B and the handle-lever.

A screw *i* passes with a screw engagement through the portion of the adjusting-lever B

which is forward of the pivot *h* and has its inner end in bearing against the base of the aforesaid recess *f*, said screw having a polygonal head whereby to turn it as occasion may require. Another screw *j* is provided to the rear of the pivot *h*, which is passed transversely through the thickness of the handle-lever with a screw engagement, its polygonal head being at the inner edge of the handle-lever, while its outwardly-protruding end is in abutment against the inner side of the adjusting-lever. These screws being brought to abutment with oppositely-applied force and at points one in advance and the other to the rear of the pivotal connection of the adjusting-lever with the handle-lever maintain the adjusting-lever in its proper adjustment with the greatest rigidity, permitting no lost motion, looseness, or lash.

Should the cutters after considerable use become worn or ground away at their meeting edges, so that the cutter-carrying levers would require readjustment by having the normal positions of their fulcrum connections *b b* approached more or less, it is only necessary to loosen by outwardly turning the screws *i i*, whereby the forward ends of the adjusting-levers may be equally swung inwardly in just the proper extent, and then to screw the rearwardly-disposed screws *j j* outwardly to a hard bearing against the rear arms of the adjusting-levers.

I am aware that a bolt-cutter of this general class has been constructed wherein the handle-lever has a narrow recess therein in which is pivotally anchored an eyebolt, which protrudes through the adjusting-lever, made in the form of a skeleton frame and pivoted at its rear end to the handle-lever, having at its forward end an abutment-screw passing therethrough with a screw engagement and having a pressure bearing against the outer edge of the handle-lever, the aforementioned eyebolt pivoted in the recess in the handle-lever, protruding through an aperture in the adjusting-lever, and receiving at the outer edge of the adjusting-lever and at a place quite near to the adjusting abutment-screw a nut; but any such specific con-

struction and arrangement I do not claim; but,

Having thus described my invention, what I do claim and desire to secure by Letters Patent, is—

1. In a bolt-cutter of the class described in combination, the handle-levers pivotally jointed at their forward ends and having an outwardly-opening recess to the rear of said pivotal connection, the adjusting-levers each having between its ends an inwardly-extending ear-lug fitting and pivotally connected in said recess of the handle-lever, a screw applied to exert an outwardly-crowding force against the rear arm of the adjusting-lever, and another screw applied to constitute an abutment between the forward arm of said adjusting-lever and a forward portion of the handle-lever and the intermediately-fulcrumed cutter-levers having their rear ends pivotally jointed to the forward ends of the adjusting-levers.

2. In a bolt-cutter of the character described in combination, the handle-levers pivotally jointed at their forward ends and having their forward portions of outwardly-opening trough form, the adjusting-levers having between their ends, the inwardly-projecting ear-lugs *g*, fitting within the recesses in the handle-levers and pivotally connected therein, a screw *j* screw-threading through each handle-lever to the rear of the adjusting-lever pivot and having its outer end protruding and in bearing against the inner surface of the rear arm of the adjusting-lever, another screw *i* screw-engaged through the forward arm of the adjusting-lever and having its inner end in abutment against the base of the recess in the handle-lever, and the intermediately-fulcrumed cutter-levers having their rear ends pivotally jointed to the forward extremities of the adjusting-levers, substantially as described and shown.

Signed by me at Springfield, Massachusetts, in presence of two subscribing witnesses.

ARTHUR L. MOORE.

Witnesses:

WM. S. BELLOWS,
A. V. LEAHY.