

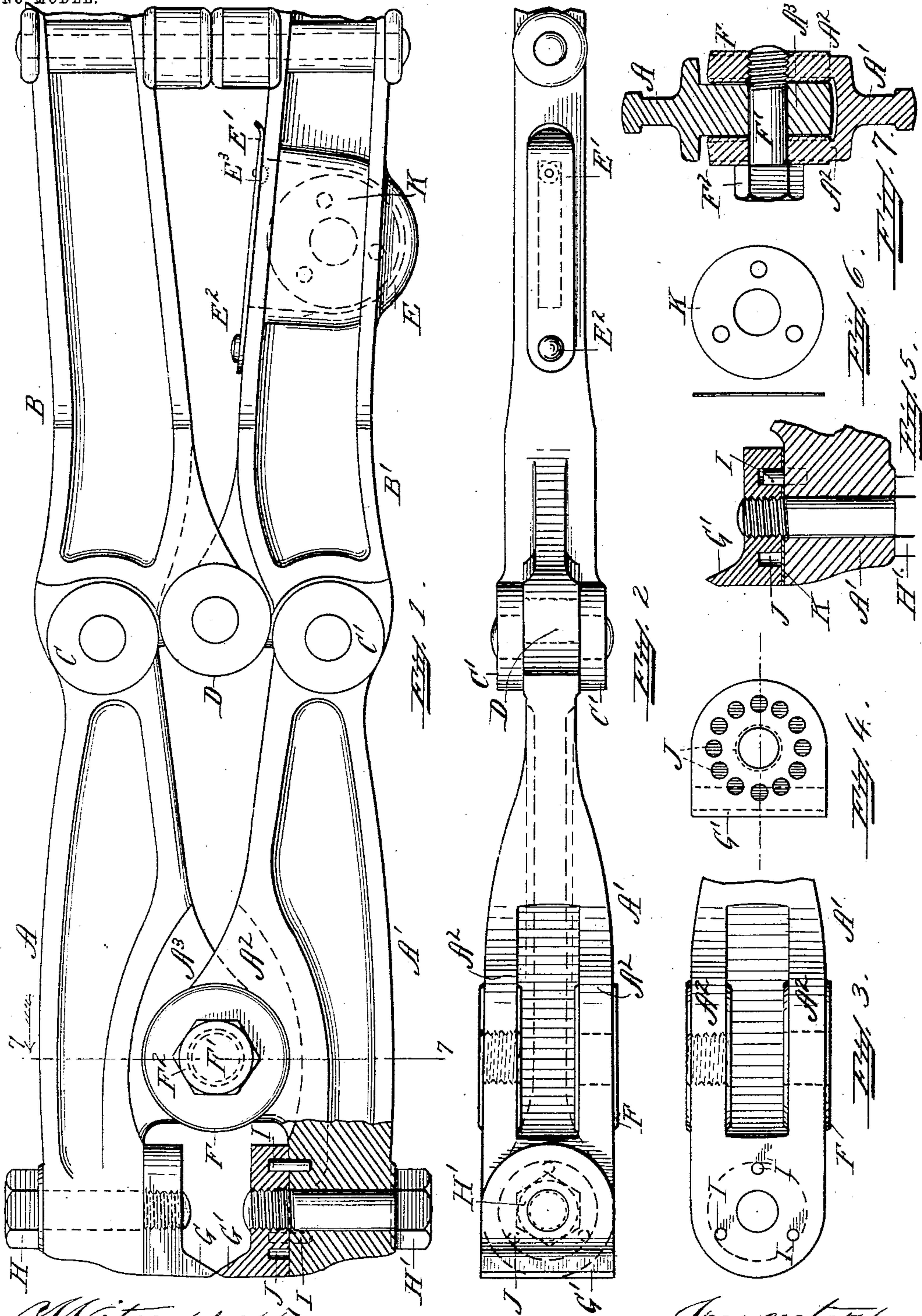
No. 745,905.

PATENTED DEC. 1, 1903.

H. K. PORTER.
BOLT CLIPPER.

APPLICATION FILED FEB. 2, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY K. PORTER, OF CHELSEA, MASSACHUSETTS.

BOLT-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 745,905, dated December 1, 1903.

Application filed February 2, 1903. Serial No. 141,439. (No model.)

To all whom it may concern:

Be it known that I, HENRY K. PORTER, a citizen of the United States, residing at Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Bolt-Clippers, of which the following is a specification.

My present invention relates to details of construction constituting improvements in the bolt-clippers for which I have heretofore been allowed Letters Patent of the United States, and has for its object to make a clipper more simple and conveniently adjustable and less expensive to make. I attain the object stated by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of the clipper embodying my said improvements, the outer ends of the handles being broken off to economize space in drawing. Fig. 2 is a plan of the upper side of the under jaw and handle shown in Fig. 1. Fig. 3 is a plan of the front end of the same with the cutter removed. Fig. 4 is a plan of the under side of the detachable cutter. Fig. 5 is a central section of the same and including a portion of the jaw on which it rests and the interposed adjusting-disk or circular shim. Fig. 6 is an edge view and plan of one of the adjusting-disks or shims employed between the cutters and jaws; and Fig. 7 is a reduced central section taken, as on line 7 7, Fig. 1, through the parts which constitute the jointed connection of the two cutter-jaws.

Referring to the drawings, the jaws A and A' are jointed to the handles B and B' by knuckle-joints C and C' of common construction, while the handles are jointed together at D in the usual manner. Handle B' is formed with a pocket E, cored in the casting thereof, and has a spring-cover E' pivoted to the handle at E² and having a catch E³, which springs into the end of the opening to the pocket in the handle when the pocket is closed, as shown. This pocket contains the adjusting-disks when they are not in use between the jaws and cutters. The jaws A and A' are formed to interlock in a joint F and are firmly secured together by a bolt F', having a head F² on one end and a thread on the opposite end. Jaw A carries a detachable cutter G, and jaw A' a like cutter G'. The cutters are

held to the faces of the jaws by bolts H and H', which are threaded on one end and have hexagonal heads on their opposite ends and are passed through the jaws and threaded into the cutters, as clearly shown in Fig. 1. The faces of the jaws which serve as seats for the cutters are each provided with three projecting pins or studs I, as shown clearly in Fig. 3, which are arranged in the face of the jaw equidistant from each other and from the center of the bolt-hole therein, and the under faces of the cutters are each drilled in a concentric circle around the bolt-hole therein and at a radial distance therefrom equal to the distance from the center of the bolt-hole in the jaw to the centers of the pins in the same, with twelve holes J, extended partially through the cutters and adapted to fit on the pins in the jaws. By this construction the cutters can be adjusted to cut in various positions and relations to the jaws, being capable of adjustment by turning to the extent of one pin at a time, being one-twelfth of the circle of thirty degrees around the central bolt. This is effected by retracting the bolt until the cutter is released therefrom and then separating the cutter from the pins and turning it one or more holes, as desired, and placing it again on the pins and securing it firmly thereon by the screw-bolt, as before. One or more pins up to the number six may be employed as may be deemed necessary to insure proper strength. The circular shims K shown in Fig. 6 are perforated with holes corresponding to the pins in the jaws and when used are placed over said pins and rest between the jaws and the cutters, as shown in Fig. 6, to raise the latter and compensate for the wearing away of their cutting edges. This compensating adjustment is effected to the extent required by the employment of one or more of the shims in the manner stated, and this method of adjustment affords a uniformly level bearing for the cutter in whatever position the latter may be turned on the anvil or flat face of the jaw, and the joint F, formed by interlocking the jaws, as shown clearly in Fig. 7, and securing them by bolt F', gives a firm support of the jaws against endwise play and consequent disturbance of the relations of the sharpened edges of the cutters and is more effective in this respect and cheaper in

construction than the jaw-teeth and straps and bolts heretofore used by me in former patents, and the adjusting-disks in connection with the above joint and detachable cutters enable me to dispense in this cutter with the more expensive and less effective handle adjustments also heretofore used by me.

I claim—

1. In a bolt-clipper the combination of a pair of lever-jaws formed to interlock with each other, and arranged to be secured together by a central pivot-bolt; and having opposite flat faces with central bolt-holes through the same, and provided with one or more projecting pins inserted therein; a pair of adjustable cutters provided with central bolt-holes and concentric circles of pin-holes around their centers and partially through their bodies, adapting them to receive said pins while seated on the jaws; a pair of fastening-bolts extended through the jaws and threaded into the cutters; and a pair of handles suitably attached to the lever-jaws for operating the same; all substantially as specified.

2. In a bolt-clipper a pair of handles pivoted together; a pair of lever-jaws interlocked

and pivotally bolted together, and jointed to the handles; a pair of cutters adjustably attached to, and secured in place upon the opposite flat faces of the lever-jaws, by means of pins projecting from the jaws into the bodies of the cutters, and bolts passing centrally through the jaws and threaded into the cutters; and one or more perforated adjusting-disks interposed between the cutters and jaws; all substantially as specified.

3. A bolt-clipper embodying the combination of a pair of lever-jaws as A and A' interlocked with each other in a pivot-joint F; a pair of detachable and adjustable cutters G and G', seated on the jaws and secured thereto by bolts H and H', with means for keeping the cutters from turning on their seats; adjusting-disks K; a pair of handles B and B' pivoted together as at D, and to the jaw-levers as at C and C'; and an inclosing pocket E, formed in one of the handles to contain the adjusting-disks when not in use; all substantially as specified.

HENRY K. PORTER.

Witnesses:

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