No. 785,230. PATENTED MAR. 21, 1905.

F. A. ROBERTS.

COMBINED BOLT CLIPPER AND SHEARS.

APPLICATION FILED JAN. 12, 1905.

2 SHEETS—SHEET 1.

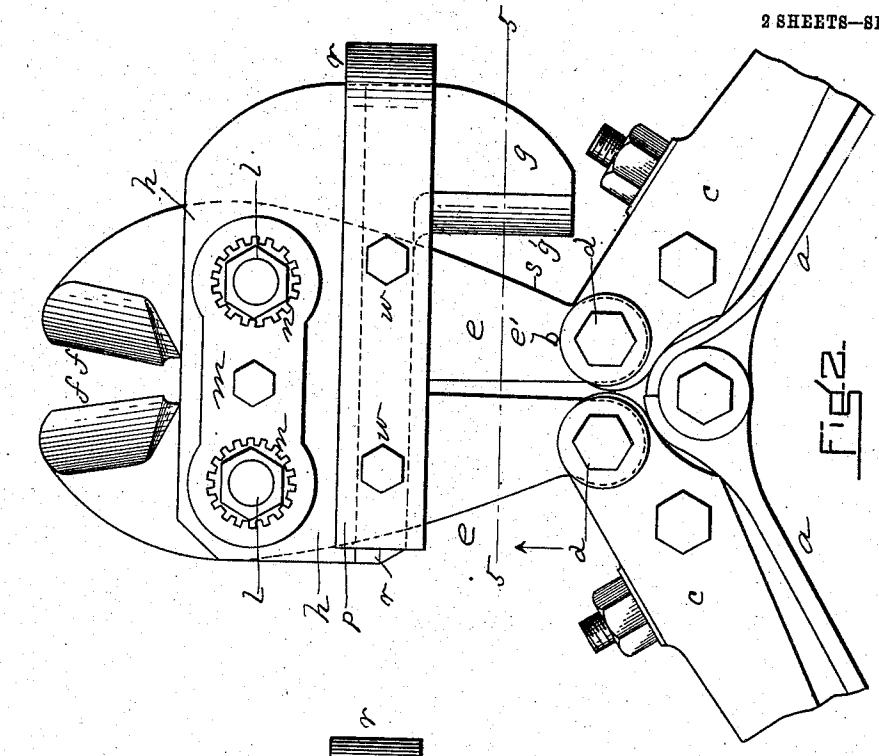


Fig. 2.

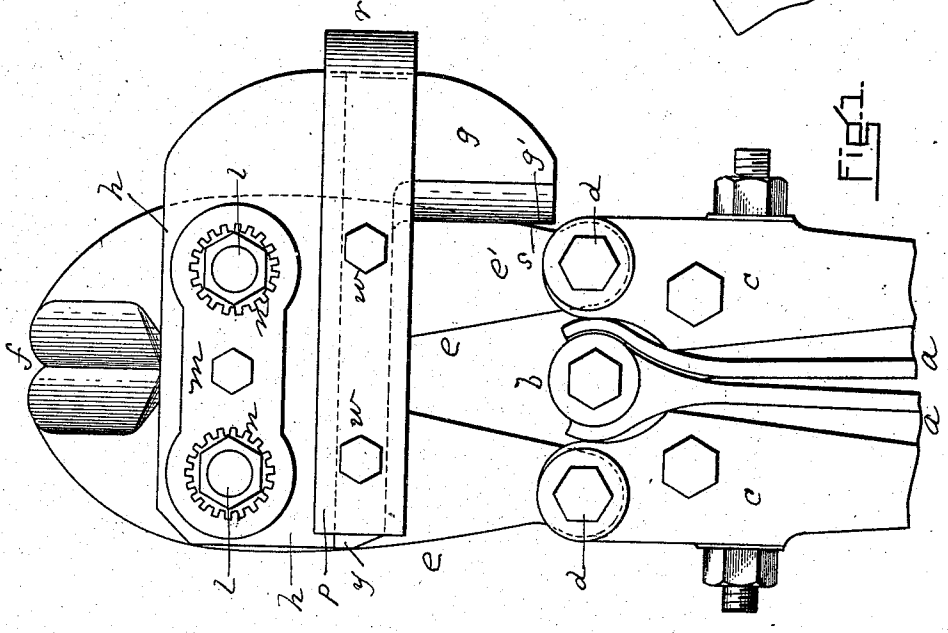


Fig. 1.

WITNESSES.
A. K. Hood.
M. A. Atwood.

INVENTOR.
Frederick A. Roberts.
By his Attys
Thomas Williams

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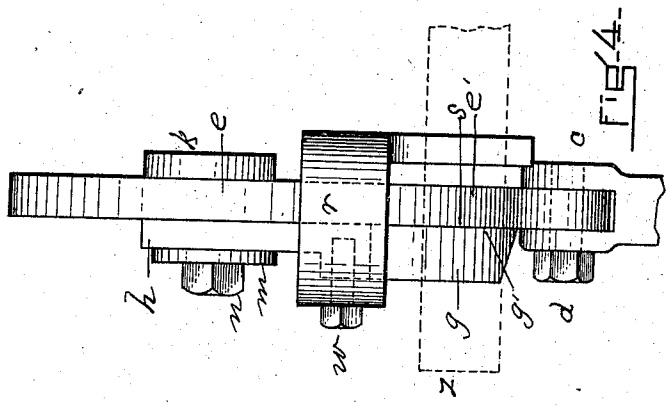


Fig. 4.

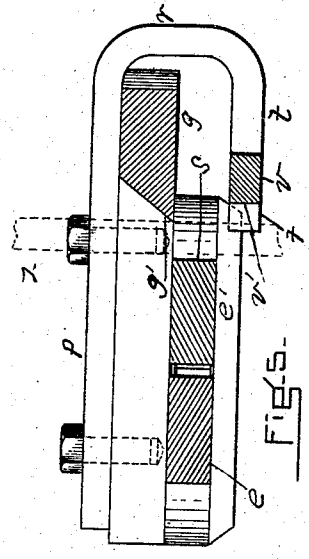


Fig. 5.

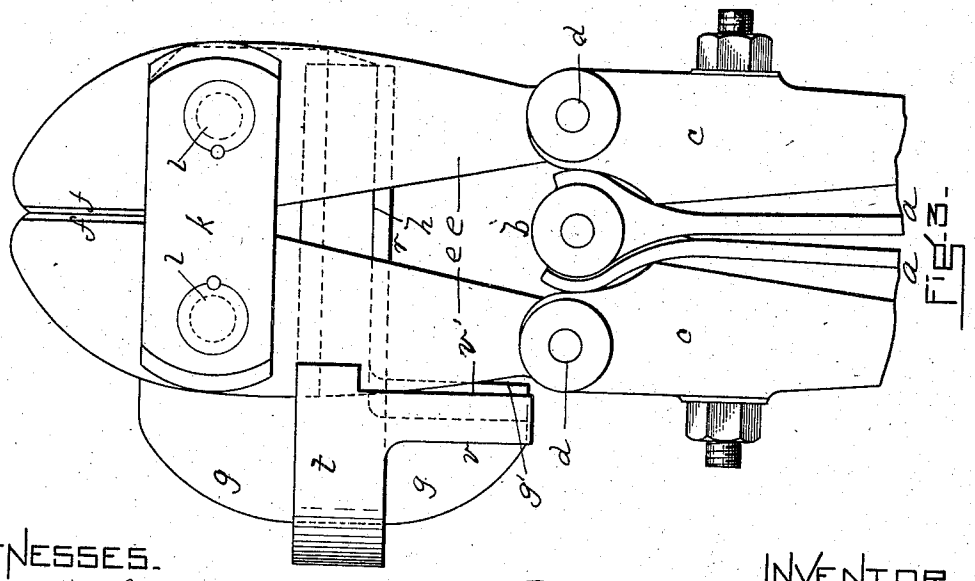


Fig. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

FREDERICK A. ROBERTS, OF SOMERVILLE, MASSACHUSETTS.

COMBINED BOLT-CLIPPER AND SHEARS.

SPECIFICATION forming part of Letters Patent No. 785,230, dated March 21, 1905.

Application filed January 12, 1905. Serial No. 240,670.

To all whom it may concern:

Be it known that I, FREDERICK A. ROBERTS, a citizen of the United States, residing in Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Combined Bolt-Clipper and Shear, of which the following is a specification.

This is a tool which combines a bolt-clipper or bolt-cutter used principally for clipping or cutting bolts, rivets, wires, rods, cables, and the like and a shear employed for cutting metallic plates or bars; and the invention relates to a certain novel construction and arrangement of parts connected especially with the cutting-jaws whereby the tool is provided with efficient cutters for performing the said operations, a high degree of power is obtained, and the tool constructed in a simple and economical manner.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the operative portion of a combined bolt-clipper and shear embodying my invention in a closed position. Fig. 2 is a similar view with the jaws open. Fig. 3 is a similar plan view of the reverse side of the tool with the jaws closed. Fig. 4 is a side or edge elevation looking toward the left. Fig. 5 is a cross-section taken on line 5 5, Fig. 2.

Similar letters of reference indicate corresponding parts.

a a represent the operating handles or levers pivoted together at their inner ends at *b*, and *c c* represent adjusting-sections, to whose forward ends are pivotally secured at *d d* the rear ends of the cutting-jaws *e e*, each of which is provided with a cutter *f*. The handles or levers, the cutting-jaws, the adjusting-sections, and the connections between said sections and jaws are not new in this invention and are constructed substantially as illustrated and described in Letters Patent of the United States numbered 769,357 and granted to me September 6, 1904, to which reference is made.

The cutters *f* are of course for the purpose of cutting and clipping bolts, &c. In this invention I utilize the outer edge *s* of the portion *e'* of one of the jaws *e* as the movable and more obtuse blade of a shear for cutting metallic plates, &c. *g* represents the other and sharper blade of the shear, *g'* being the cutting edge, said blade extending toward the handles, as illustrated, from a heavy and strong shank *h*, with which it is integral. This shank is practically the top strap which, with the bottom strap *k*, connects the jaws *e* by means of the pivots or pins *l*.

m represents an ordinary lock-plate provided with gear-shaped nuts *n*, which fit in corresponding holes in said plate.

To use the tool as a bolt-clipper, the cutters *f* are spread apart by spreading the handles *a* in the ordinary manner and the bolt operated on by forcing the handles together. To use the tool as a shear for cutting a metallic plate, the handles are spread apart into the positions indicated in Fig. 2 and the plate inserted between the cutting edge *g'* on the blade *g* of the shear, extending from the top strap *h* and the outer edge *s* of the jaw *e* on that side. The shear cut is produced by drawing the handles together into the position indicated in Figs. 1 and 3. It will be seen that in clipping the bolt and cutting the plate the locations of the articles to be cut are on opposite sides of the pivots or pins *l* and near enough to said pivots to obtain great power, whereby bolts and plates of considerable thickness can be cut with comparatively little effort.

p r t v represent what is termed a "keeper," the object of which is to prevent the article being cut from jumping or bending and to prevent the shear-blade from spreading or bending. In this invention the keeper consists of the shank portion *p*, extending across from one jaw *e* to the other and bolted at *w* to a rib *y*, integral with the shank or top strap *h*, the bent portion *r*, which extends around the outer edge of the shear-blade *g*, the portion *t*, which extends inward under or on the opposite side of the jaw *e*, which is next the shear-blade and parallel with the portion *w*, and the rearwardly-extending arm *v*, which extends under and parallel with the blade *g* and substantially with its cutting edge *g'*. The part lettered *v* is the operative portion of the keeper, and when the plate to be cut (illustrated in the dotted lines *z* in Figs. 4 and 5)

is inserted between the edges g' and s it extends by the edge v' of the keeper and bearing against said edge is prevented from being bent up, and the blades e g are thereby prevented from being spread apart.

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

1. A combined bolt-clipper and shear, comprising the cutting-jaws e, operating-handles for spreading and closing the cutting edges on said jaws, a top strap extending from one of said jaws to the other and pivoted thereto, and a shear-blade extending from said top strap along and with relation to the outer edge of one of the cutting-jaws whereby the inner edge of the shear-blade and the outer edge of said cutting-jaw are both utilized as blades for cutting metallic plates and the like, and operated by said handles.

2. A combined bolt-clipper and shear, comprising the cutting-jaws e, operating-handles for spreading and closing the cutting edges on said jaws, a top strap extending from one of said jaws to the other and pivoted thereto, and the shear-blade g provided with the inner cutting edge g', said shear-blade extending from the top strap at approximately right angles therewith along the outer edge of the cutting-jaw on that side whereby the cutting-jaw and shear-blade are both operated as cutting-blades by the handles.

3. In a combined bolt-clipper and shear, the combination with one of the cutting-jaws e and a shear-blade extending along the outer edge of said cutting-jaw whereby the said jaw and blade are operated to produce a shear cut, and the top strap; of a keeper comprising the shank p secured to the top strap, the portions v and t bent around said cutting-jaw to the opposite side thereof, and the arm v adapted to engage the article to be cut and prevent it from bending up or spreading the said jaw and blade.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK A. ROBERTS.

Witnesses:
HENRY W. WILLIAMS,
A. K. HOOD.