

R. FAWCETT.
Bolt and Rivet-Trimmers.

No. 151,111.

Patented May 19, 1874.

Fig. 1.

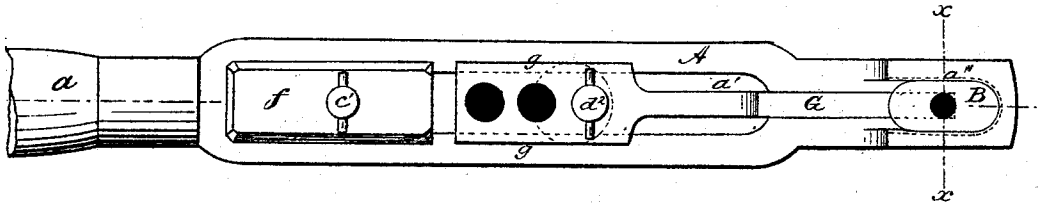


Fig. 2.

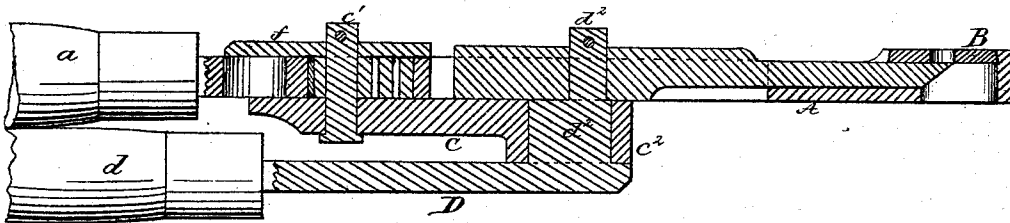


Fig. 3.

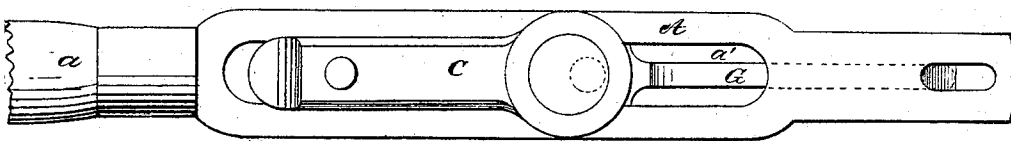
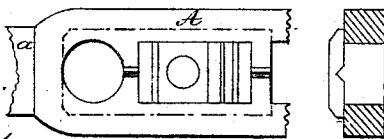


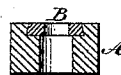
Fig. 4.



Witnesses.

Wm. E. Chaffee

Fig. 5.



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UNITED STATES PATENT OFFICE.

RICHARD FAWCETT, OF SALEM, OHIO.

IMPROVEMENT IN BOLT AND RIVET TRIMMERS.

Specification forming part of Letters Patent No. **151,111**, dated May 19, 1874; application filed October 17, 1873.

To all whom it may concern:

Be it known that I, RICHARD FAWCETT, of Salem, county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Bolt and Rivet Trimmers, of which the following is a specification:

My invention relates to certain improvements in bolt and rivet trimmers, in which the cutter is constructed and operates after the manner of a chisel sliding in a slotted bar; and it consists in a metallic plate inserted in a recess near the front end of the bar, having a hole for the reception of the end of the bolt to be trimmed, serving as a gage for the length of the bolt and a bearing for the same, and capable of being removed and replaced by another of different dimensions. The invention consists, further, in an adjustable pivoted laterally-vibrating link, forming the main bearing and support of the lever, which operates the cutter, and connects said lever with the bar. The invention consists, further, in a cutter formed and operated like a chisel sliding in a slot in the bar, and provided with a series of holes for adjusting it when worn.

In the accompanying drawing, Figure 1 represents a bottom view of my improved bolt and rivet trimmer. Fig. 2 is a central longitudinal section. Fig. 3 is a top view with lever D and handle *d* removed. Fig. 4 is a longitudinal sectional view. Fig. 5 is a transverse sectional view.

A represents a metallic bar provided with a handle, *a*, and having a slot, *a*¹, running nearly its entire length, and a smaller slot, *a*², near its front end. On the under side or face of the bar the slot *a*² has a portion cut away at the inner end, and has its sides beveled inward to allow of the insertion of a tempered steel plate, B, of oblong form, as shown in Fig. 1. This plate has its edges beveled to correspond with the beveled sides of the slot *a*², so that when in place it is held after the manner of a dovetail. The plate B has a hole for the reception of the end of the bolt or rivet to be trimmed, and its thickness corresponds with the length of bolt which is desired to be left protruding after trimming. When in place it intervenes between the nut and under side of the cutter, and serves as a bearing for the bolt, fitting closely to the sides of the

bolt, and evenly distributing the pressure, and can be readily removed and reversed endwise if worn, bringing the rear face of the hole in front, or may be replaced by another of different thickness, or one having a hole to correspond with a different-sized bolt. C is an adjustable pivoted laterally-vibrating link, forming the main bearing and support of the lever D, which operates the cutter, and connects said lever with the bar A. The connecting-pivot *c*¹ upon which the link C vibrates, has its bearing in a block, *e*, inserted in a recess in the bar A, near the handle. This block *e* may be moved longitudinally in the recess, and the bearing of the pivot *c*¹ placed forward by means of the movable pieces of metal that may be placed back of the block *e*, for adjusting the cutter when ground back in sharpening. When the block *e* has reached its forward limit of movement it may be returned to the back end of the recess, and the cutter moved forward upon the eccentric-pin, and the adjustment continued by these means jointly, until the cutter is worn out. The pivot *c*¹ passes through the block *e*, and through a washer-plate, *f*, which has grooves on its inner face for engagement with tongues on the bar A, so as to prevent lateral displacement of the washer-plate. The pivot *c*¹ is secured by a pin or key. At the forward end of the link C is an enlargement, *c*², forming an eye, in which the lever D has its bearing, said lever being provided with a handle *d*. Projecting from the bearing or fulcrum of the lever is an eccentric-pin, *d*², which passes through the cutter, and is held in place by a pin or key. The cutter G has its rear portion corresponding in width with the slot *a*¹, so as to slide freely therein, and has a series of perforations for engagement with the pin *d*², by which means, in connection with the adjustment of the link C, as already described, the cutter is moved forward or back, as desired. It is also formed with a flange, *g*, projecting over each side of the slot *a*¹, and serving to guide and hold it in place. The forward end is beveled and sharpened, as a chisel, for cutting.

In using this instrument the handles *a* *d* are separated at an angle of ninety degrees, more or less, and the end of the bolt or rivet is in-

serted in the perforated plate B. The handles are then brought together, and, by means of the eccentric-pin d^2 on the lever D, the cutter is moved forward, and the bolt or rivet neatly trimmed.

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

1. The removable plate B in the front portion of the bar A, perforated so as closely surround the bolt, and prevent the flattening of the end of the same when trimmed, substantially as set forth and shown.

2. The adjustable pivoted laterally-vibrating

link C, constructed and operating substantially as shown and described.

3. The cutter G working in the slot a^1 , and having rear portion provided with a series of perforations for the purpose of adjusting it, substantially as shown and described.

In testimony that I claim the foregoing as my invention I hereunto affix my signature.

RICHARD FAWCETT.

Witnesses:

B. FRANK TABER,
R. B. ENGLE.