# M.M.Morden.

Bolt-Cutter.

Nº72954

Patented Dec. 31,1867.

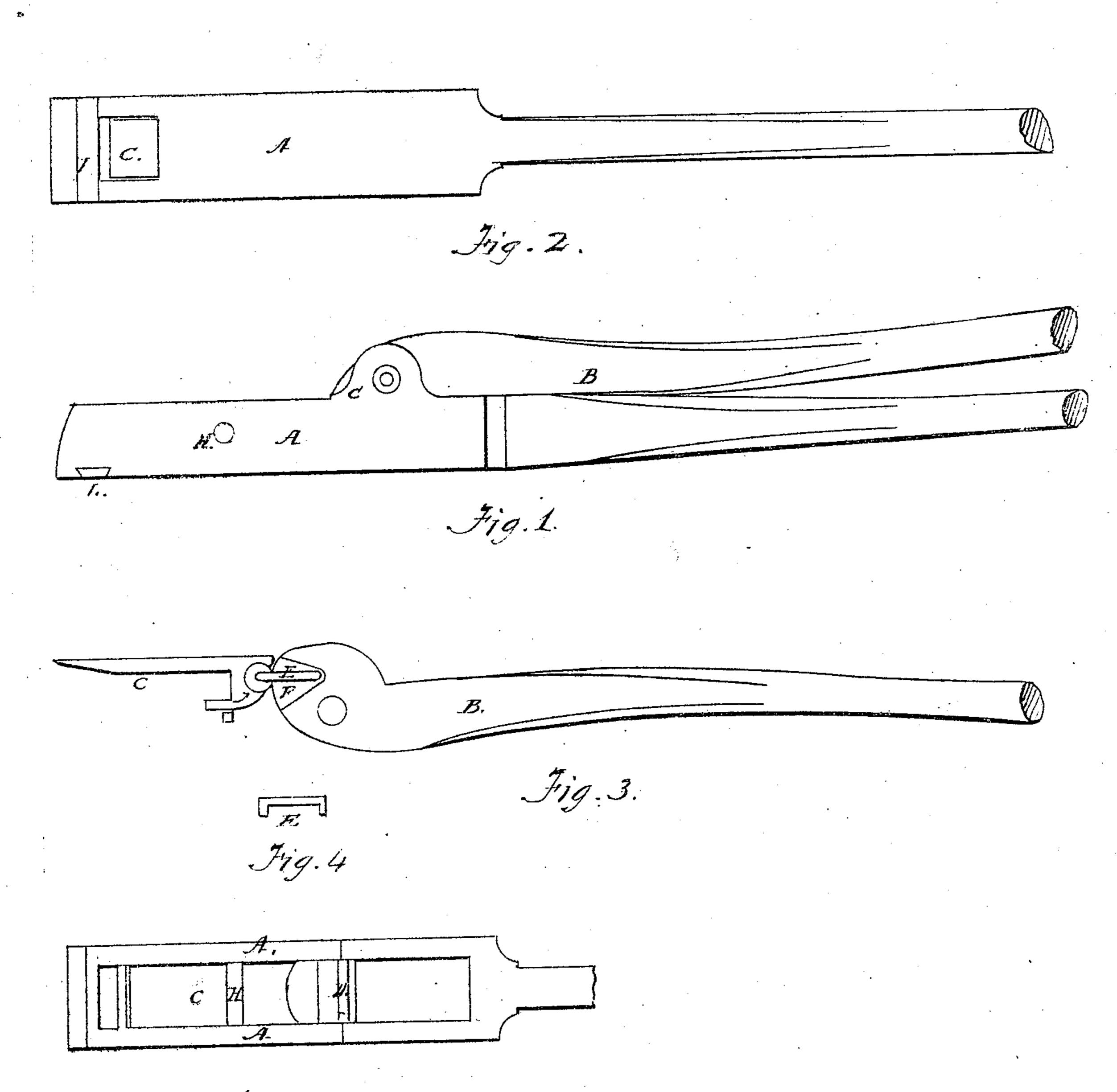


Fig. 5.

Witnesses; 243 Smith 249 Bath Inventor; M.W. Worden

## Anited States Patent Pffice.

### W. W. WORDEN, OF WAUKESHA, WISCONSIN, ASSIGNOR TO HIMSELF AND DANIEL HOWELL, OF SAME PLACE.

Letters Patent No. 72,954, dated December 31, 1867.

### IMPROVED BOLT-CUTTER.

The Schedule referred to in these Vetters Patent and making part of the same.

#### TO ALL WHOM IT MAY CONCERN:

Be it known that I, W. W. Worden, of the town of Waukesha, county of Waukesha, and State of Wisconsin, have invented a new and useful Improvement in Bolt-Trimmers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side view of the trimmer.

Figure 2, a bottom view.

Figure 3, eccentric lever, cutting-knife, anti-friction roller, and connecting-link.

Figure 4, connecting-link.

Figure 5, top view of cutting-knife in place.

Similar letters of reference in each of the figures indicate corresponding parts.

The object of my invention is to provide a tool for trimming the ends of bolts that project above the nuts after the nuts are set up firmly in place.

A is the bed-piece; B, an eccentric-lever, which operates the cutting-knife; C, the cutting-knife; D, a roller in the back end or butt of the cutting-knife, to lessen the friction of the eccentric-lever when operating the knife; E, hook which connects the cutting-knife and eccentric-lever; it hooks into one end of the roller D, and into a hole in the lever. This hook draws the knife back when lever B is raised. The roller D is embedded in the butt of the cutting-knife more than half its size, and is put in place and taken out by shoving it endwise. F is a slot in the side of the eccentric-lever for the hook E to work in. It is just deep enough to let the hook E come flush with the side of the lever, and when the lever is in place the side of the bed-piece A keeps the hook from working out. G is a pin, making a fulcrum for lever B; H, pin through bed-piece A, under which knife C works; I, a piece of steel, dove-tailed into the bottom of bed-piece A for the nut to rest against when the bolt is being trimmed.

Operation: Place the timmer over the end of the bolt and nut, raising lever B to draw the knife back, the nut entering the square hole in bed-piece A till the knife rests on it, the point of the bolt projecting above the nut and above the edge of the knife. Lever B is then brought down, which forces the knife forward, its edge striking the bolt close down to the nut. The nut is forced against the steel bar I, which is made bevelling on the upper side, which prevents the nut from slipping should it be tapering, and as the knife is thus thrown forward, the bolt is trimmed off close down to the nut.

What I claim as my invention, and desire to secure by Letters Patent, is-

Eccentric-lever B, hook E, roller D, and cutting-knife C, in combination, substantially as described.

W. W. WORDEN.

#### Witnesses:

A. J. FRAME,

D. HOWELL.