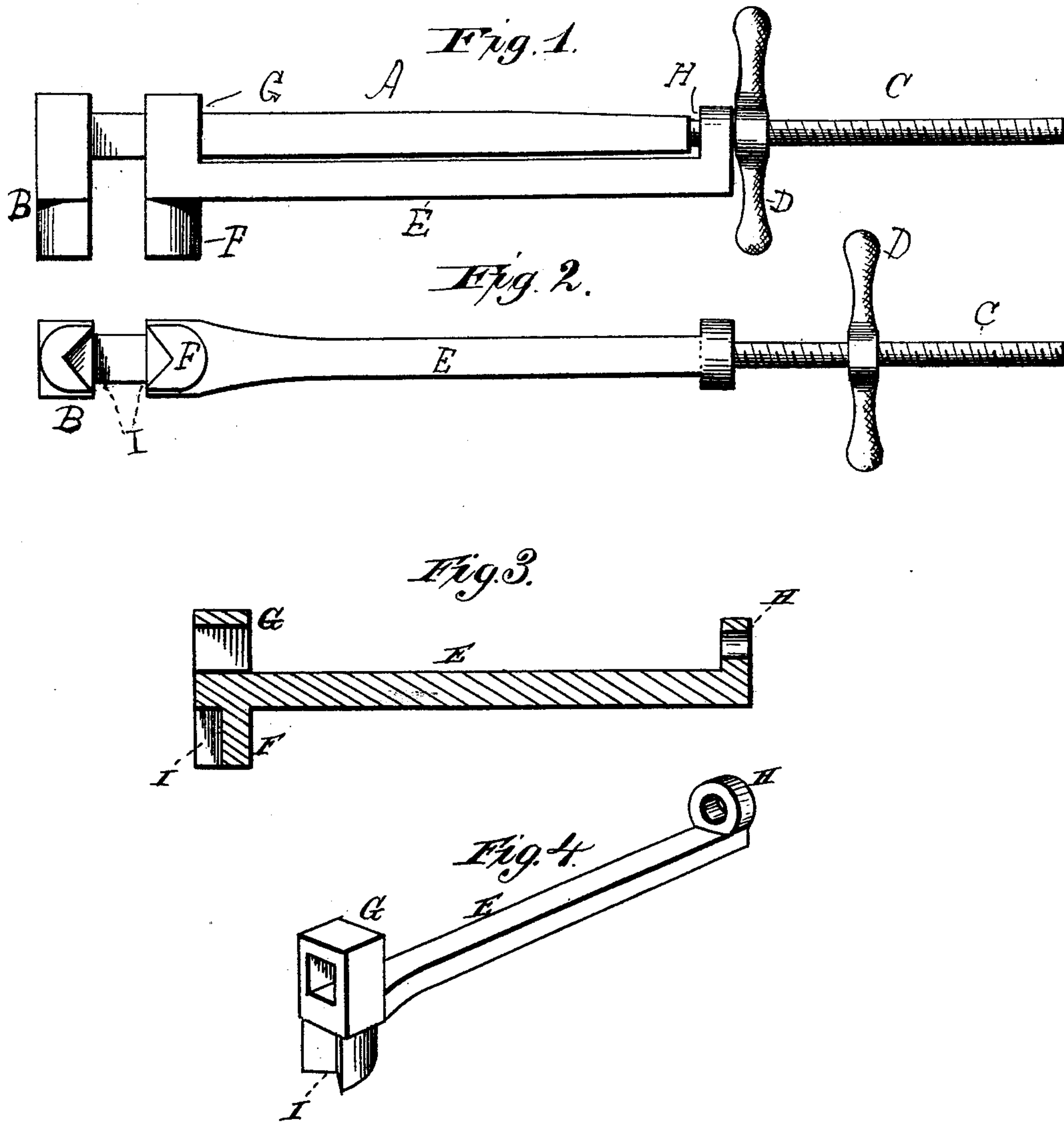


(No Model.)

H. A THOMPSON.  
Wrench.

No. 234,091.

Patented Nov. 2, 1880.



Witnesses.  
H. L. Curran  
E. H. Bradford

Inventor.  
H. A. Thompson  
By H. E. Ennis  
his attorney

# UNITED STATES PATENT OFFICE.

HENRY A. THOMPSON, OF FARMINGTON, MAINE.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 234,091, dated November 2, 1880.

Application filed August 2, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY ARTEMAS THOMPSON, a citizen of the United States, residing at Farmington, in the county of Franklin and State of Maine, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in wrenches, and it is particularly designed to be employed as a nut-wrench for carriages, although it is applicable to all other purposes for which a wrench is required.

My invention has for its objects to provide a wrench that may be cheaply constructed, and that may be conveniently and quickly adjusted to fit a nut of any size, and rapidly operated to secure or detach the nut, that will not be liable to drop the nut in the dirt, and which can be employed to pick up the nut without soiling the fingers, as more fully hereinafter specified. These objects I accomplish by the device illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation, and Fig. 2 a front elevation, of my improved wrench. Fig. 3 is a longitudinal section of the metallic bar E, and Fig. 4 is a perspective view of the bar shown in section in Fig. 3.

The letter A indicates a metal bar provided with a jaw, B, at one end and a screw-threaded shank, C, at the other.

The letter D indicates a lever provided with a screw-threaded aperture and mounted on the screw-threaded shank of the bar A.

The letter E indicates a metallic bar somewhat less in length than the bar A, provided at its forward end with a jaw, F, and a rectangular opening, G, through which the bar A is passed. At its rear end the said bar E is bent downward at a right angle, and is provided with an aperture, H, through which the screw-threaded shank of the bar A passes.

The inner faces of the two jaws are formed with angular recesses I, by means of which a

square nut may be grasped at the corners and embraced at all sides, in order to secure the most effective leverage upon said nut and to hold the nut securely.

The operation of my improved wrench is as follows: The nut is secured between the jaws by placing the same between said jaws and advancing the bar E until the angular recesses embrace the corners of the said nut. The lever D is then turned upon the threaded shank, so as to advance it against the rear end of the bar E and clamp the jaw F securely against the nut.

When it is desired to release the nut from the wrench, or to adjust the wrench to larger nuts, the lever may be slightly started, when it can be rapidly twirled by striking the respective arms successively in the same direction, thus effecting the necessary movement of the lever with the greatest expedition.

It will be perceived that as constructed the wrench consists of three parts, which are extremely simple in construction, and which can be manufactured at little expense as compared with the adjustable wrenches in common use, and that a strong and durable article, not liable to get out of order by rough usage, is produced, and one that is applicable to almost universal use.

I deem the lever D an important feature of the combination, allowing, as it does, the greatest rapidity in operating the wrench.

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

The combination of the bar E, having a transverse arm at one end, provided with rectangular apertures G, at the other a similar transverse arm perforated at H, and having a jaw, F, and the bar A, having threaded part C and jaw B, the bar A operating through the apertures G H of the bar E with the threaded double lever D, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY ARTEMAS THOMPSON.

Witnesses:

JAMES P. RUSSELL,  
J. G. BROWN.