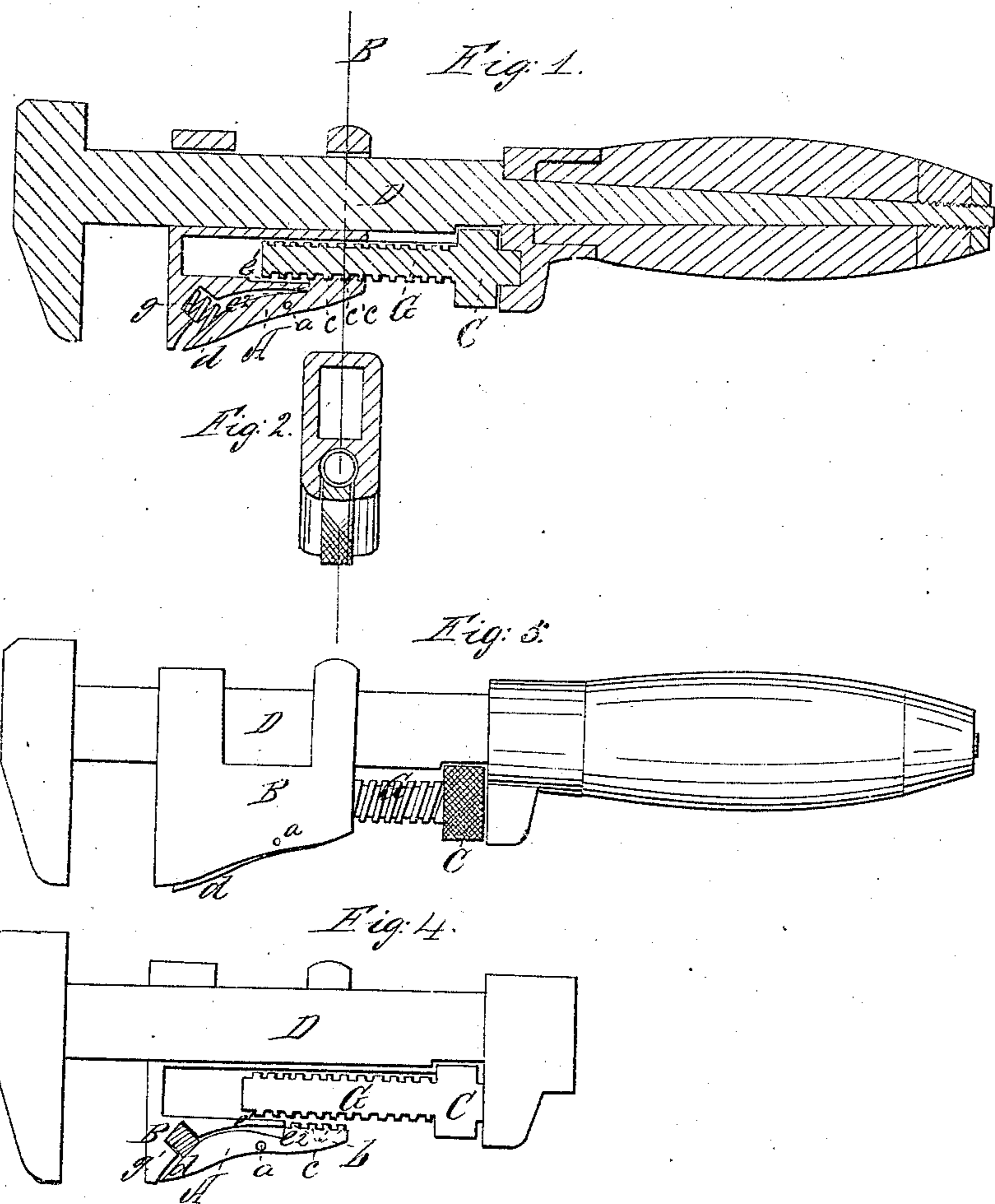


J. A. Partridge,

Wrench.

N^o 63,935.

Patented Apr. 16, 1867.



Witnesses:

*John E. Crane
J. S. Whitney*

Inventor:

James A. Partridge

United States Patent Office.

JAMES A. PARTRIDGE, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND E. D. WRIGHT, OF SAME PLACE.

Letters Patent No. 63,935, dated April 16, 1867.

IMPROVEMENT IN WRENCHES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES A. PARTRIDGE, of Lowell, in the county of Middlesex, and State of Massachusetts, have invented certain new and useful Improvements in Wrenches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a central longitudinal section.

Figure 2, a transverse section on the line A B of fig. 1.

Figure 3 is a side elevation, and

Figure 4 a central longitudinal section, showing the operating end of the liberating lever depressed, and the segmentary nut disengaged from the adjusting-screw.

This invention consists, first, in the use and application to an ordinary slide-wrench of a liberating lever, A, arranged in the movable jaw B, when said lever is provided with a segmental nut consisting of screw-threads *e* formed in or upon the inner or semicircular side of that end *b* of the lever which comes in contact with the adjusting-screw G, said lever being pivoted at *a*, and the segmental nut held in contact with the adjusting-screw, by means of a spiral or other spring, *g*, placed in a socket in the movable jaw, or between said jaw and the end *d* of the lever. My invention also consists in forming or providing a shoulder, *e*¹, on the inner portion of the movable jaw, and a corresponding shoulder, *e*², on the lever, so that when the segmental nut engages with the adjusting-screw, the said shoulders shall come together, and take the strain off the pivot *a*, when the wrench is being used to turn a nut or hold a bolt, or for other purposes, thereby preventing the pivot being broken and the wrench disabled. And my invention consists in the deep-cut surface of quadrilateral figures, on the periphery of the head C of the adjusting-screw, the object of which is to prevent the surface wearing so smooth by constant use as to render it difficult to turn the screw by friction applied to the head. Any small adjustment of my improved wrench is made by turning the screw, as in the ordinary slide-wrench, which has no liberating lever; but to adjust the movable jaw quickly to fit any object within the capacity of the wrench, it is only necessary to press on the end *d* of the liberating lever, when the segmental nut at the end *b* of said lever will be thrown out of contact with the screw G, as clearly shown in fig. 4, and the movable jaw may be slid along on the smooth shank D of the wrench to any desired place; releasing the pressure on the end *d* of the lever, allows the spring *g* to throw the segmental nut into contact with the screw, and hold the movable jaw against one side of the object grasped by the two jaws of the wrench.

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

1. The liberating lever A, applied to the movable jaw of a slide-wrench, when said lever has a segmental nut formed in the end *b* thereof, to engage with the screw G, and a spring, *g*, at or near the end *d*, to throw the nut into contact with the screw, and all arranged to operate substantially as and for the purpose set forth.
2. The shoulders *e*¹ and *e*², constructed and arranged to operate substantially as and for the purpose set forth.

JAMES A. PARTRIDGE.

Witnesses:

JOHN E. CRANE,

J. S. WHITNEY.