

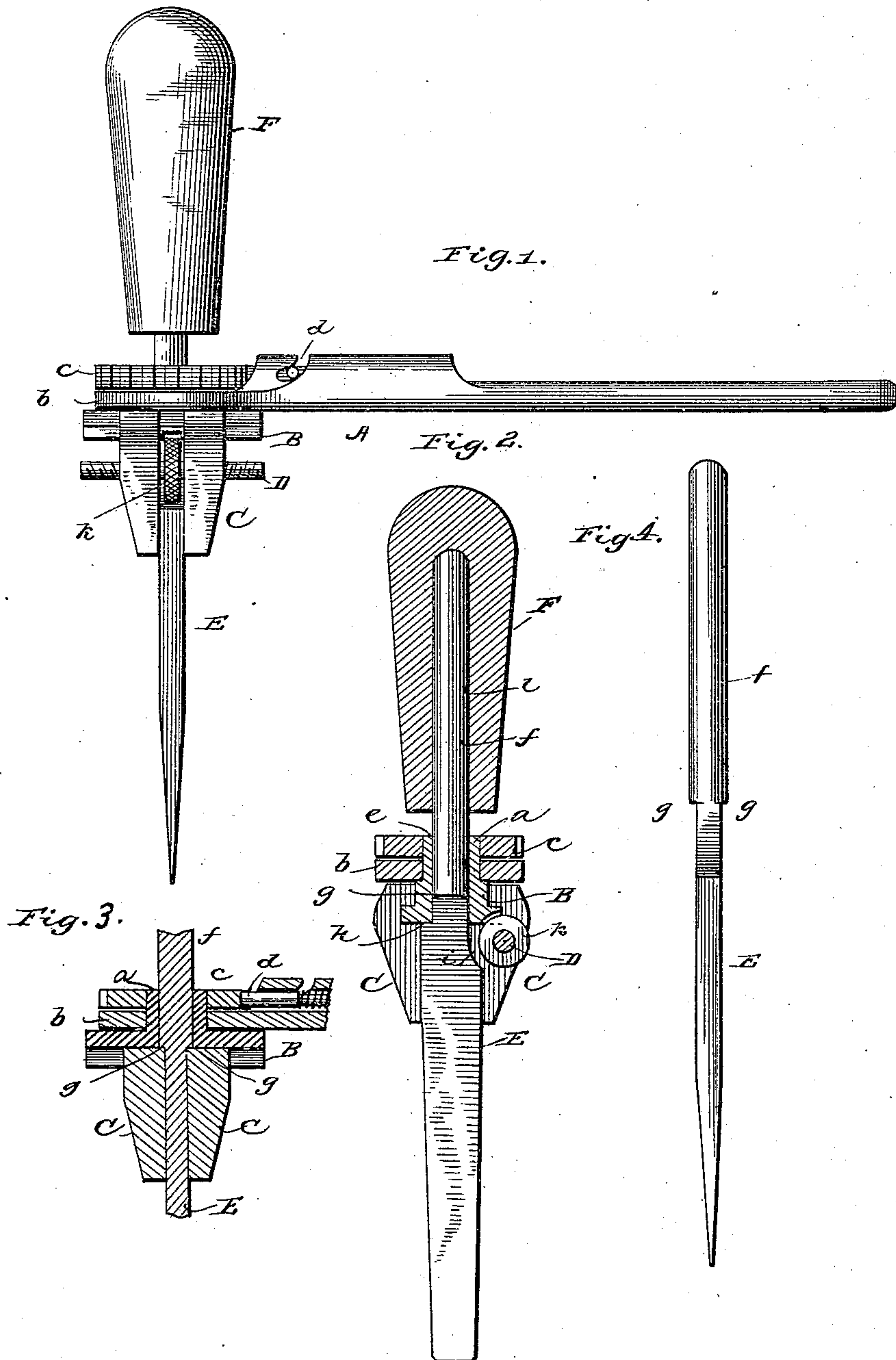
(No Model.)

C. H. MYERS.

COMBINED RATCHET WRENCH AND SCREW DRIVER.

No. 446,072.

Patented Feb. 10, 1891.



Witnesses:

Harry S. Rohrer.
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UNITED STATES PATENT OFFICE.

CHARLES HENRY MYERS, OF PHELPS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
THE KEYSTONE MANUFACTURING COMPANY, OF BUFFALO, NEW YORK.

COMBINED RATCHET-WRENCH AND SCREW-DRIVER.

SPECIFICATION forming part of Letters Patent No. 446,072, dated February 10, 1891.

Application filed November 14, 1889. Serial No. 330,359. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY MYERS, a citizen of the United States, residing at the village of Phelps, in the county of Ontario and State of New York, have invented a new and useful Improvement in a Combined Ratchet-Wrench and Screw-Driver, of which the following is a specification.

My invention relates to combination-tools, and has for its object certain improvements in construction, which will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a side elevation of my invention; Fig. 2, a vertical transverse section through the head of the wrench; Fig. 3, a similar section at right angles to Fig. 2, and Fig. 4 an edge view of the screw-driver bit detached.

Reference being had to the drawings and the letters thereon, A indicates a wrench, provided with a bar B, upon which the jaws C C are supported, and are moved laterally thereon by a screw D, engaging with both jaws. The bar B is provided with an upward extension *a*, which extends through the front end or head of the handle *b* of the wrench, and has secured to its upper end a ratchet-wheel *c*, with which a spring-actuated and reversible dog *d* engages. Through the extension *a* is an aperture *e*, into which the shank *f* of the screw-driver bit is inserted.

The screw-driver bit E is flattened on its sides in planes which coincide with the planes of the jaws C C, and is engaged or clamped by said jaws for turning the bit. Upon opposite sides of the shank of the bit are shoulders *g g*, with which the upper edge of the jaws engage; and upon one edge is a shoulder or seat *h*, which rests upon one of the lower sides of the bar B. By the jaws C C engaging with the shoulders *g g*, and the shoulder

h resting upon the bar B, the screw-driver bit is prevented from falling out of the wrench should the jaws not engage with the sides of the bit tightly. The upper end of the blade is provided with a recess *i* for the disk *k* on the screw D to revolve in, and the lower end of the blade of the bit is sharpened to engage with the slot in the head of a screw. After a bit has been inserted in the head of a wrench a handle F, provided with a socket *l*, is placed over the shank *f*, in which the bit revolves freely.

The handle F is held in one hand of the operator while the screw-driver bit is revolved by the other hand engaging the handle of the wrench and moving it back and forth.

The tool affords a ready and convenient means for inserting and removing screws in places difficult of access, and is capable of having great power applied thereto by means of the leverage of the wrench-handle and the ratchet.

Having thus fully described my invention, what I claim is—

1. A wrench provided with movable jaws, an aperture in the head of the wrench, and a ratchet, in combination with a screw-driver bit having a cylindrical shank and flattened sides to be engaged by the jaws of the wrench, and a detachable handle for the shank of the bit, substantially as described.

2. A wrench provided with movable jaws, an aperture in the head of the wrench, and a ratchet, in combination with a screw-driver bit having a cylindrical shank, flattened sides and shoulders to be engaged by the wrench, and a detachable handle provided with a socket in which the shank of the bit revolves, substantially as described.

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Witnesses:

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