R. H. McCORMICK & W. R. BAKER.

Wrench.

No. 166,020. Patented July 27, 1875.

Fig 1.

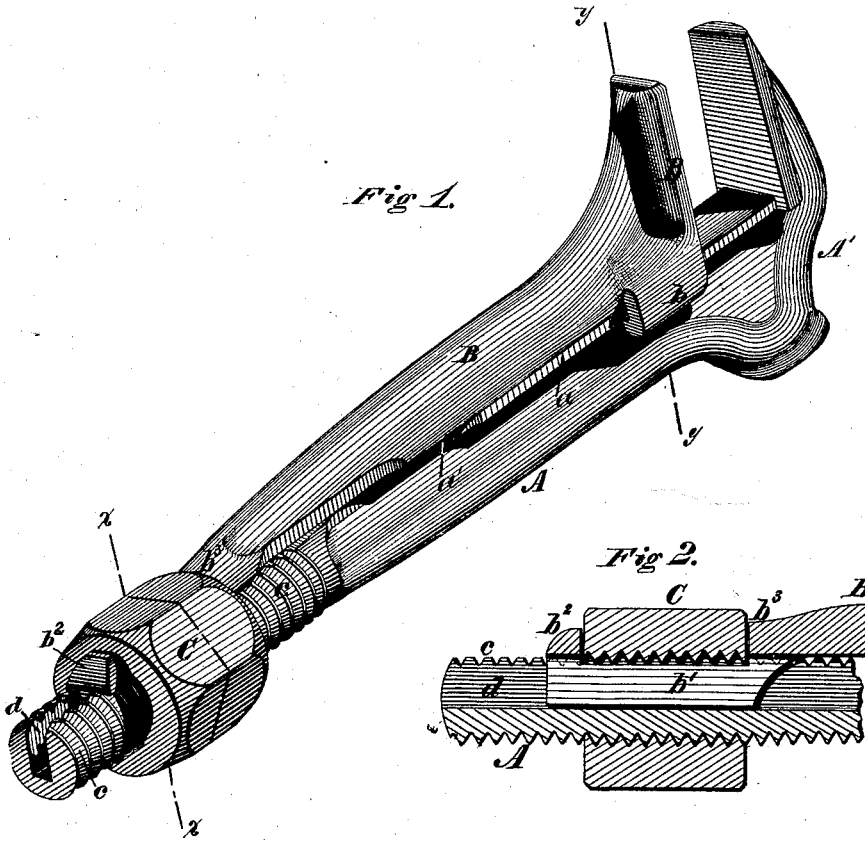


Fig 2.

Fig 3.

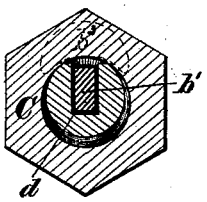
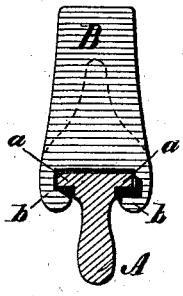


Fig 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

ROBERT HALL McCORMICK AND WILLIAM R. BAKER, OF CHICAGO, ILLINOIS; SAID BAKER ASSIGNOR TO SAID McCORMICK.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **166,020**, dated July 27, 1875; application filed April 13, 1875.

To all whom it may concern:

Be it known that we, ROBERT HALL MC CORMICK and WM. R. BAKER, both of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Wrenches, of which the following is a specification:

Our invention relates to wrenches of that class in which one portion is movable or adjustable upon the other by means of a screw-nut, and has for its object to cheapen and simplify their manufacture. To this end our invention consists in providing the main portion of the wrench with flanges on its top edge next to its head, and with a longitudinal groove in its outer end, and the movable portion with grooves formed in overlapping flanges thereon, and a depending tongue on its outer end, whereby the parts are connected together, and the heads or jaws thereof adapted to be forced together or drawn apart by a screw-nut working on the main portion of the wrench.

In the accompanying drawings, Figure 1 is a perspective view of our improved wrench when ready for use; Fig. 2, a vertical longitudinal section through the outer or handle end thereof; Fig. 3, a transverse section on the line *x x* of Fig. 1, and Fig. 4 a similar section on the line *y y* of Fig. 1.

The main portion A of the wrench is provided with the usual head or jaw A′, and with flanges *a a* on its top edge next thereto. A longitudinal groove, *d*, is also formed in its outer or handle end, the object of which will presently be explained. The movable portion B of the wrench is provided with the usual head or jaw B′, between which and the jaw of the main portion the nut or other object to be operated upon is clamped. From this head or jaw B′ flanges *b* project, in which are formed grooves, as clearly shown in Fig. 4, which are adapted for the reception of the flanges *a* of the main portion of the wrench, and by which the parts are securely held together, while permitting of longitudinal adjustment. This portion B is also provided on its outer end with a depending tongue, b^1, which is adapted to fit and work in the longitudinal groove *d* of the portion A. Over this depending tongue b^1, the outer end of which terminates in an upwardly-projecting shoulder or lug, b^2, and upon screw-threads *c*, formed upon the main portion of the wrench, is passed a nut, C; the object of which is, that when rotated in one direction the heads or jaws of the wrench will be caused to approach each other by the nut acting upon the shoulder b^3 of the portion B, to clamp upon any object over which they are placed, and by rotating it in the opposite direction the said jaws will be drawn apart by the nut acting on the shoulder b^2 of the tongue—the object clamped by the jaws, if any, being consequently released.

It will be obvious that the shoulder on the end of the tongue will necessitate the placing of the nut over it, before its passage upon the screw-threads, and for the easy connection of the parts the flanges *a a* are beveled or cut away at the point *a′*. (Best seen in Fig. 1.)

We contemplate manufacturing our wrench of malleable metal, and without the usual wooden handle, by which we secure a wrench easily and cheaply manufactured, while perfect in operation; one that occupies but little space in transportation, and one that under no circumstances, except breakage, is liable to get out of order.

It is obvious that the flanges and grooves on the respective portions of the wrench may be transposed—that is, the straight flanges may be formed upon the portion B, and the grooved flanges upon the portion A—without departing from the spirit of our invention.

We claim—

The improved wrench hereinbefore set forth, consisting of the combination of the main portion, provided with a jaw, guide-flanges, a longitudinal guide-groove, and a screw; a movable portion, provided with a jaw, grooved flanges interlocking with the guide-flanges on the main jaw, and a tongue working in the guide-groove, and a screw-nut working on the screw of the main portion and over the sliding portion, for the purposes specified.

In testimony whereof we have hereunto subscribed our names.

ROBERT HALL McCORMICK.
WM. R. BAKER.

Witnesses:
F. H. MATTHEWS,
D. McINTYRE.