(No Model.)

C. W. LOEFFLER.

WRENCH.

No. 537,212. Patented Apr. 9, 1895.

Fig. 1.

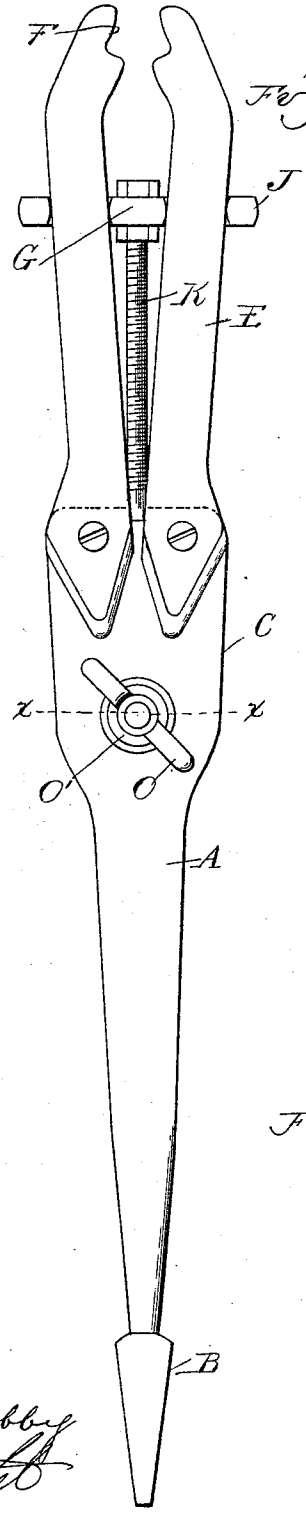


Fig. 2.

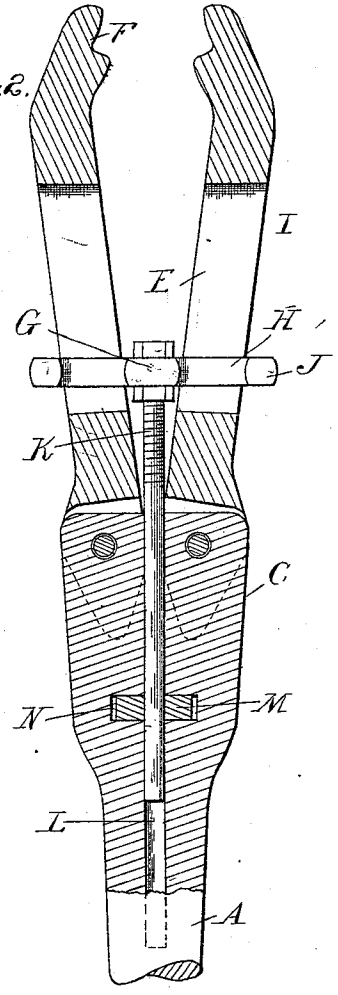
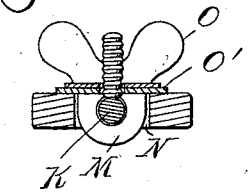


Fig. 3.



Witnesses
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A. F. Barthel

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UNITED STATES PATENT OFFICE.

CHARLES W. LOEFFLER, OF COPEMISH, MICHIGAN.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 537,212, dated April 9, 1895.

Application filed January 7, 1895. Serial No. 534,091. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. LOEFFLER, a citizen of the United States, residing at Copemish, in the county of Manistee and State of Michigan, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of an adjustable wrench adapted to be used as a bit in the ordinary brace to expedite the tightening and loosening of nuts.

The invention further consists in the peculiar construction, arrangement and combination of the various parts all as more fully hereinafter described.

In the drawings, Figure 1 is a side elevation of my improved device. Fig. 2 is a vertical, central, longitudinal section therethrough, and Fig. 3 is a cross section on the line *x x* Fig. 1 the rings of the nut being shown in full.

A is a shank having the usual squared portion B at its end to engage in the socket of a brace and at the opposite end is provided with an enlargement or head C.

E are jaws bifurcated at their inner ends, to embrace the end of the shank, to which they are pivoted. These jaws incline outwardly toward their outer ends where they are provided with nut recesses or sockets F.

G is a spreader head engaging in the inner faces of the jaws E and provided with the laterally extending arms H which pass through central slots I in the jaws and at their outer ends are provided with the cross-bars J engaging the outer face of the jaws, as plainly shown in Figs. 1 and 2.

K is a rod engaging centrally with the head G and slidingly engaging in an aperture L in the shank.

M is a screw eye entering an aperture N in the shank and through which the rod K engages, as shown in Fig. 3.

O is a winged nut for clamping the rod K in its adjusted position, O′ being interposed washers between the nut and the screw-eye.

The head G, arms H and cross-heads J form what I call an adjusting yoke for the jaws.

The parts being thus constructed they are intended to operate as follows: The device being inserted in a brace in the usual manner, the jaws may be adjusted to engage with a nut of the desired size by loosening the clamping nut O and sliding the yoke in or out, which movement opens or closes the jaws. When the desired spread is obtained to the jaws they are secured in adjusted position by the wing nut and then by turning the brace, the nut upon which the wrench is intended to operate may be loosened or tightened as desired.

What I claim as my invention is—

1. In a wrench, the combination with the shank having an aperture therein, of jaws pivoted at the end of the shank, a yoke having a head between the jaws, arms on the head, and cross-heads on the arms engaging the outer faces of the jaws, a rod secured to the yoke and entering the aperture in the shank, a screw eye for clamping the rod in its adjusted position, and a nut on the screw of the eye, substantially as described.

2. The combination with the shank having the squared end B, of the jaws pivoted at the opposite end thereof and provided with vertical slots, of the yoke having a head between the jaws, and arms passing through the slots, cross-heads on the outer ends of the arms engaging the outer face of the jaws, the rod centrally secured to the cross-head and entering an aperture in the shank, a screw eye for clamping the rod in its adjusted position, and a nut on the screw of the eye substantially as described.

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

CHARLES W. LOEFFLER.

Witnesses:
C. W. KINGSLEY,
F. C. WILSON.