

(No Model.)

G. K. KELSEA.
BICYCLE WRENCH.

No. 564,625.

Patented July 28, 1896.

Fig. 1.

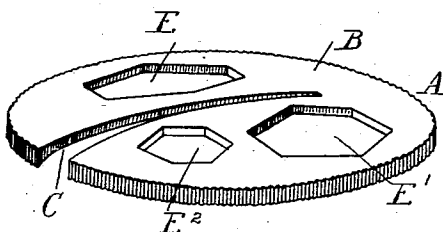


Fig. 2.

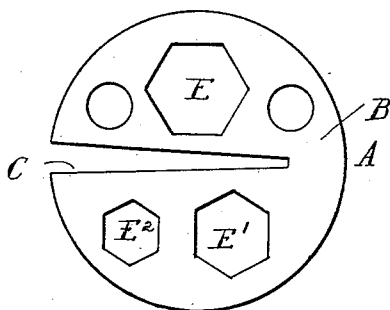
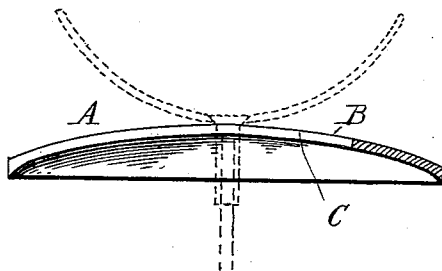


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE K. KELSEA, OF DETROIT, MICHIGAN, ASSIGNOR OF TWO-THIRDS
TO JAMES J. NOLAN AND FRANK T. CAUGHEY, OF SAME PLACE.

BICYCLE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 564,625, dated July 28, 1896.

Application filed November 29, 1895. Serial No. 570,388. (No model.)

To all whom it may concern:

Be it known that I, GEORGE K. KELSEA, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Bicycle-Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to the construction of a wrench for turning spoke-nipples on bicycles, and other small nuts; and it consists in a disk having a convex face with nut-holding apertures therethrough, as more fully and particularly hereinafter pointed out and claimed.

In the drawings, Figure 1 is a perspective view of my improved device. Fig. 2 is a top plan view thereof, and Fig. 3 is a central section showing in dotted lines a bicycle rim and nipple with which the wrench is engaged.

A is a plate or disk, preferably substantially circular in plan, having its upper face B convex. In making it of a plate of metal it would be formed by dies into a concavo-convex shape; but if cast it might be made with only its upper face convex.

C is a V-shaped slot formed diametrically in the disk from one edge toward the other edge and preferably extending beyond the center. The disk thus formed may be engaged with a nipple of a bicycle-spoke by engaging the slot over a spoke-nipple and moving it until the sides thereof impinge against the sides of the nipple. By rotating the disk the nipple will be turned the desired amount. Then it may be disengaged by a retrograde movement of the disk laterally.

The convex upper face of the disk permits the engagement of the slot with the nipple

close to the face of the wheel-rim, and yet brings the edge by which the disk is turned far enough below so as not to cause the fingers to strike the rim.

E E' E² are a series of polygonal apertures (preferably hexagonal) through the disk, which may be engaged over nuts of different size, and when so engaged the disk being turned will turn the nut as a wrench.

The device thus forms a handy tool which takes little room in a tool-box, which will fit most nuts of a bicycle, and which can be used in places where an ordinary wrench is not applicable conveniently, as, for instance, in turning nipples, &c.

By having the slot C extend past the center, with gripping-jaws for the nipple at the center, that is, spaced to grip the nipple in the center of the disk, the disk turns about the nipple as its axis and leaves ample room at all points between wrench and spokes.

What I claim is—

1. A wrench formed of a single piece of metal, having a diametrically-arranged V-shaped opening extending from one side inward beyond the center, its upper face being convex.

2. A wrench formed of a single piece of metal concavo-convex, gripping-jaws formed by a diametrically-arranged V-shaped slot extending from the edge beyond the center and having the polygonal nut-apertures beside the slot, substantially as described.

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

GEORGE K. KELSEA.

Witnesses:

M. B. O'DOHERTY,
O. F. BARTHEL.