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Patented Apr. 24, 1900.

E. E. TAGGART.
NIPPLE GRIP FOR BICYCLE WHEELS.

(Application filed Aug. 14, 1897.)

(No Model.)

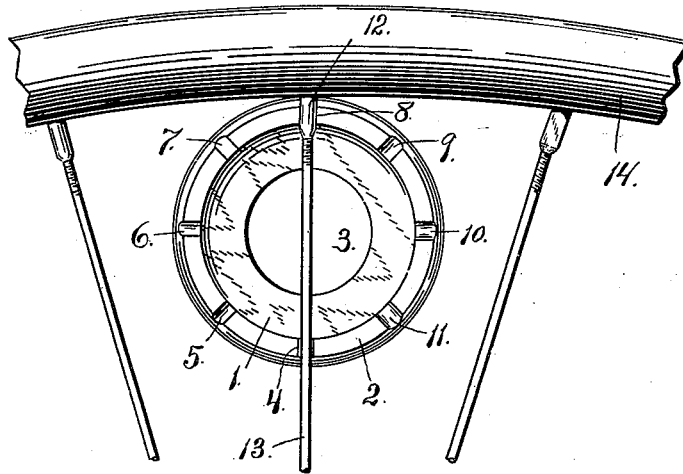


Fig. 1.

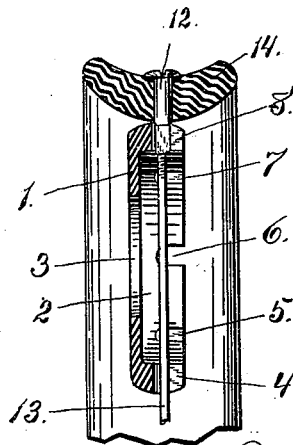


Fig. 2.

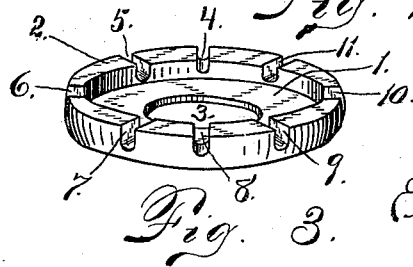


Fig. 3.

Witnesses.

C. B. Butler
R. H. Conner

Inventor.

Emr. E. Taggart

by W. T. Miller

Attorney.

UNITED STATES PATENT OFFICE.

ELMER E. TAGGART, OF BUFFALO, NEW YORK.

NIPPLE-GRIP FOR BICYCLE-WHEELS.

SPECIFICATION forming part of Letters Patent No. 648,135, dated April 24, 1900.

Application filed August 14, 1897. Serial No. 648,215. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. TAGGART, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Nipple-Grips for Bicycle-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in nipple-grips for adjusting the tension of the wire spokes of bicycle-wheels in the operation of truing the same; and it consists of a disk having its outer edge provided with an annular flange, the flange having formed therein a series of radial grooves graduated in size and adapted for turning engagement with the nipples upon the spokes of a bicycle-wheel, the halves of the disk on each side of the spoke constituting two levers operating in opposite directions upon the nipple.

I will now describe in detail the manner in which I have carried out my invention and then claim what I believe to be novel.

In the drawings, Figure 1 shows my improved grip in operative engagement with one of the nipples of a bicycle-wheel. Fig. 2 is a central transverse section of my improved grip in the position shown in Fig. 1, and Fig. 3 is a perspective view of my improved grip.

Referring to the drawings, 1 is the disk, preferably of steel and about one-sixteenth of an inch in thickness. Around its outer edge is the annular flange 2, preferably at right angles thereto and about one-eighth of an inch in thickness. This flanged disk is about two inches in diameter and has a central opening 3 about one inch in diameter, which reduces the amount of steel required.

As shown in the drawings, I have provided a series of grooves 4 5 6 7 8 9 10 11, graduated in size, the groove 4 being the narrowest and the groove 11 the widest, these and the intermediate sizes being adapted to fit the different-sized nipples now in use on bicycle-wheels. The grooves have flat parallel inner walls, the inner end of each groove being pref-

erably rounded, as shown. It will be seen that the grooves 4 and 8, 5 and 9, 6 and 10, and 7 and 11 are placed diametrically opposite each other.

In operation the grip is so adjusted in position, as seen in Figs. 1 and 2, that the nipple 12 will fit snugly in one of the grooves, as 8, and the wire spoke 13, which is in screw-threaded engagement with the nipple 12, will lie loosely in the opposite groove 4. In this position the grip can be readily turned by the hand to revolve the nipple, and thereby increase or decrease the tension of the wire spoke 13 in the operation of truing the wheel.

It will be seen that the halves of the disk on each side of the spoke constitute two levers operating in opposite directions upon the nipple to turn the same, which makes the manipulation exceedingly easy and efficient.

The outer periphery of the grip, as will be seen, is preferably convex in cross-section, so that when the grip is in operative position it can barely touch the inner convex polished surface of the rim 14, so that the chances of marring the rim-surface are very slight.

It will be seen that my improved grip is adapted for use with all-sized nipples, is quickly placed in operative position upon the nipple and spoke, has no parts to become detached or broken, and is extremely economical in construction and light and compact in form.

I claim—

1. A nipple-grip for truing bicycle-wheels consisting of a disk having its outer edge provided with an annular flange, the flange having formed therein a series of radial grooves, graduated in size and adapted for turning engagement with the nipples upon the spokes of a bicycle-wheel, the halves of the disk on each side of the spoke constituting two levers operating in opposite directions upon the nipple.

2. A nipple-grip for truing bicycle-wheels consisting of a disk having its outer edge provided with an annular flange, the flange having a series of grooves, graduated in size, with flat parallel opposite walls adapted for turning engagement with the flat sides of the nipples upon the spokes of a bicycle-wheel, the grooves being arranged in diametrically-opposite sets, the halves of the disk on each side

of the spoke constituting two levers operating in opposite directions upon the nipple.

3. A spoke-nipple wrench consisting of a ring or short cylinder of metal provided with
5 a notch in the edge to engage the nipple and a notch in the same edge, diametrically opposite, to engage on the spoke, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of 10 two subscribing witnesses.

ELMER E. TAGGART.

Witnesses:

CYRUS T. BAPE,
W. T. MILLER.