(No Model.)

J. R. KENNEDY.

BICYCLE HUB.

No. 564,698. Patented July 28, 1896.

Fig. 1.

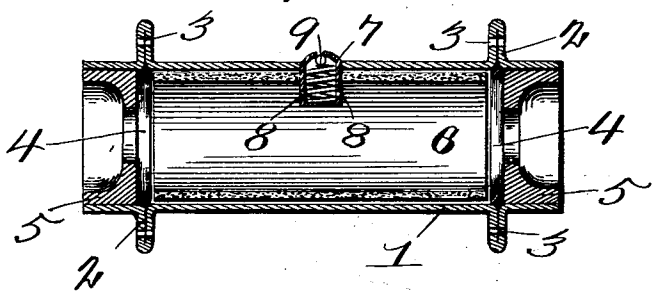
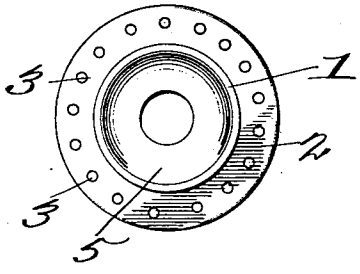


Fig. 2.



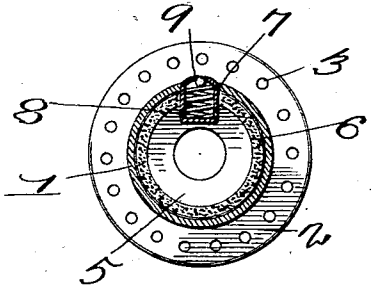


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN ROBERT KENNEDY, OF CORTLAND, NEW YORK.

BICYCLE-HUB.

SPECIFICATION forming part of Letters Patent No. 564,698, dated July 28, 1896.

Application filed October 19, 1895. Serial No. 566,274. (No model.)

To all whom it may concern:

Be it known that I, JOHN ROBERT KENNEDY, a citizen of the United States, residing at Cortland, in the county of Cortland and State of New York, have invented certain new and useful Improvements in Bicycle-Hubs; 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.

The invention relates generally to hubs for vehicle-wheels, but is more particularly designed for that class of wheels known as "cycle-wheels;" and it consists of a hub formed of tubular metal and having spoke-flanges formed integral therewith, and in providing said hub with means for automatically lubricating the ball-bearings which are situated in the respective ends of the hub; and the invention further consists in providing means whereby the hub is strengthened at the flange-bends and the oil or other lubricant is prevented from leaking through the spoke-holes in said flanges, said means also serving as a seat for the ball-bearing cases, as will be hereinafter more fully explained, and specifically set forth in the claim.

The principal object of the invention is to produce a tubular hub that will be both simple and cheap of construction and possess the necessary quality of lightness, yet be sufficiently strong to withstand any amount of strain or weight to which it may be subjected while in proper use.

Another object of the invention is to provide for the proper lubrication of the ball-bearings in a most simple and effective manner.

These objects are attained by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of my improved hub; Fig. 2, an end view of the same, and Fig. 3 a transverse sectional view taken through the center of the hub.

Referring to the several views, the numeral 1 indicates the hub, which is formed of tubular metal having struck-up spoke-flanges 2, provided with spoke-holes 3. These flanges, as will be seen, are integral with the hub and are formed by heating the metal and then compressing the tube under great pressure.

The seams produced by the formation of the spoke-flanges are protected by a wire ring 4, which is brazed securely over each seam, as shown in Fig. 1, and serves to strengthen the flange at the bends, and also as a seat for the ball-bearing cases 5, which are situated one in each end of the hub.

The inner wall of the hub, between the flanges, is lined with an absorbent material 6, preferably felt, and said hub is perforated to receive an oil-cup 7, which projects within the hub a suitable distance and is provided with apertures 8 to allow the oil or other lubricant to percolate through upon the absorbent material and thence gradually find its way to the ball-bearing cases. As the flange-seams are effectually protected by the wire rings 4, it will be evident that the lubricating material is prevented from passing out through the spoke-holes in the flanges and soiling the outer surface of the hub and the spokes. The mouth of the oil-cup is kept normally closed by a spring-actuated ball-valve 9, as shown in Figs. 1 and 3.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with the axle, of a tubular hub having a wire ring secured within the hub, near each end thereof, a lining of absorbent material between the wire rings and a self-feeding oil-cup, whereby the lubricant is automatically fed to the axle and bearings, substantially as specified.

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

JOHN ROBERT KENNEDY.

Witnesses:

LUCIUS P. HOLLENBECK,

CHARLES M. MEZCUMB.