(No Model.)

W. H. BINNS.

CYCLE HUB.

No. 589,954. Patented Sept. 14, 1897.

Fig. 1.

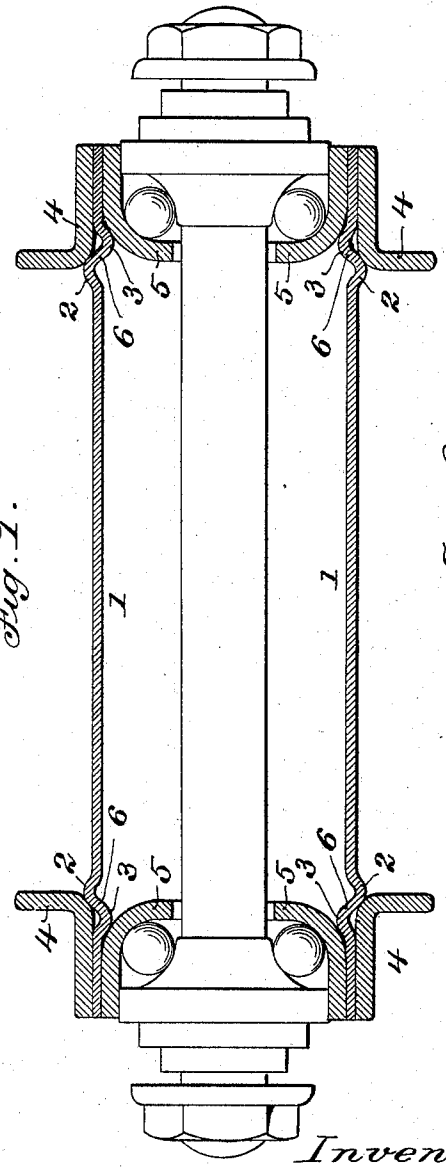
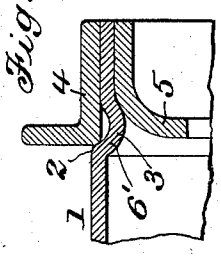


Fig. 2.



Attest:
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by Robert Burns Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. BINNS, OF CHICAGO, ILLINOIS.

CYCLE-HUB.

SPECIFICATION forming part of Letters Patent No. 589,954, dated September 14, 1897.

Application filed February 10, 1896. Serial No. 578,754. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BINNS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Cycle-Hubs; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to that type of bicycle-hubs in which a section of metal tubing is employed to receive the ball-bearing cups as well as to afford an attachment for the inner ends of the wire spokes of the cycle-wheel; and the present invention has for its object to provide a simple and efficient formation of such tubular shell or hub by which a ready and substantial attachment of both the hardened ball-bearing cups as well as the spoke-flanges can be effected and their proper position within and upon the shell insured, all as will hereinafter more fully appear, and be more particularly pointed out in the claims. I attain such objects by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is an enlarged longitudinal section of a bicycle-hub embodying my present invention; Fig. 2, an enlarged detail longitudinal section of a modified form of the same.

Similar numerals of reference indicate like parts in both views.

Referring to the drawings, 1 represents the hub or shell of a bicycle or other wheel consisting of a section of tubing of the required length and formed near its respective ends with the outwardly-arranged shoulders 2 and the inwardly-arranged shoulders 3.

4 are the spoke rims or flanges having an L-shaped cross-section that fits upon the respective ends of the shell 1 and abut against the shoulders 2, so as to be held to their proper position upon the shell.

5 are the hardened ball-cups, fitting tightly within the ends of the shell 1 and abutting against the shoulders 3, so as to be held in their proper position within the shell 1.

In the present invention the shoulders 2 and 3 are formed by circumferential beads 6 in the shell 1, that are preferably of the reversed nature or arrangement shown in Fig. 1, the one part or portion of which projects in an outward direction from the periphery of the shell 1 to constitute the shoulder 2 and the other part or portion in an inward direction from the inner surface of the shell 1 to constitute the shoulder 3, heretofore described.

A modification of the above-described construction is shown in Fig. 2, in which the circumferential beads 6′ near the ends of the shell 1 is formed wholly inwardly from the central portion of said shell, and the outer ends of the shell are reduced in diameter, so that the inner edges of such beads will constitute the stop-shoulders 2 for the spoke-flange, while the main portion of such bead will constitute the stop-shoulders 3 for the ball-cups, in the same manner as in the former construction.

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

1. The herein-described hub for cycle and other wheels, the same comprising a tubular shell having circumferential beads near its ends, forming the outward and inward abutting shoulders 2 and 3, the spoke rims or flanges 4, fitting the outside of the hub or shell and adapted to abut against the shoulders 2, and the ball-cups 5 fitting within the hub or shell and adapted to abut against the shoulders 3, as described and for the purpose set forth.

2. The herein-described hub for cycle and other wheels, the same comprising a tubular shell, having circumferential beads near its ends, of the reversed form described, that form the outward and inward abutting shoulders 2 and 3, the spoke rims or flanges 4, fitting the outside of the hub or shell and adapted to abut against the shoulders 2, and the ball-cups 5 fitting within the hub or shell and adapted to abut against the shoulders 3, as described and for the purpose set forth.

In testimony whereof witness my hand this 7th day of February, 1896.

WILLIAM H. BINNS.

In presence of—

ROBERT BURNS,

H. A. NOTT.