

(No Model)

N. E. PARISH.
WHEEL HUB,

No. 583,190.

Patented May 25, 1897.

FIG. 1.

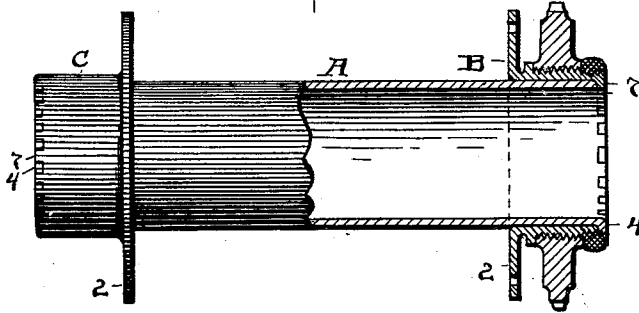


FIG. 2.

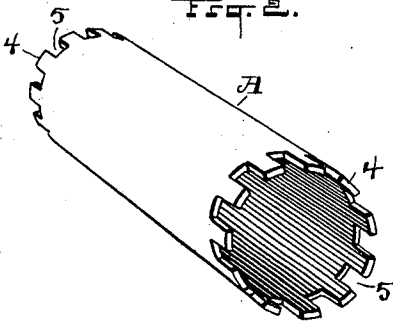


FIG. 3.

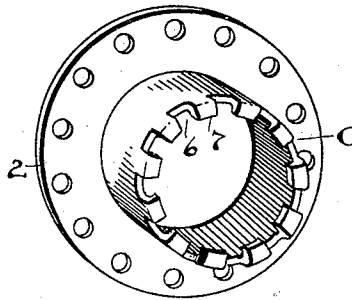


FIG. 4.

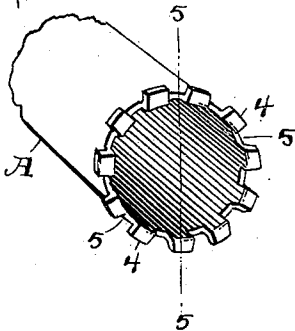


FIG. 5.

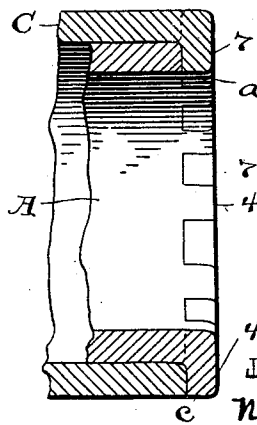
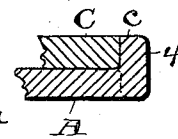


FIG. 6.



ATTEST

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NEFF E. PARISH, OF CLEVELAND, OHIO, ASSIGNOR TO THE PARISH & BINGHAM COMPANY, OF SAME PLACE.

WHEEL-HUB.

SPECIFICATION forming part of Letters Patent No. 583,190, dated May 25, 1897.

Application filed July 20, 1896. Serial No. 599,861. (No model.)

To all whom it may concern:

Be it known that I, NEFF E. PARISH, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Wheel-Hubs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to wheel-hubs for bicycles and other vehicles, and has reference especially to the class of hubs known as "tubular hubs" in contradistinction to those that are turned out of metal on a lathe or other turning-machine.

The object of this invention is to produce a tubular hub which is at least equally as serviceable and desirable for all purposes as the hub which is turned up bodily from a single piece of metal and which, by reason of its manner of construction, is materially lighter and cheaper than the turned-up hub. I am, of course, aware that the so-called "tubular hub" is now well known in the art and that a number of different patterns of this style of hub have been made and patented, but I am not aware that any person has ever before known or used a construction of hub having the novel features of this invention.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of a hub embodying my invention. Fig. 2 is a perspective view of the plain tube which forms the foundation of the hub, and Fig. 3 is a perspective elevation of one of the flanged sleeves or collars which are secured upon the ends of the tube. Fig. 4 is a perspective view of one end of the cylinder shown in Fig. 2, but having the projections thereon bent back at right angles, as occurs when connection is made with the flanged sleeve that comes over said end, as seen in Fig. 1. Figs. 5 and 6 are considerably-enlarged sectional elevations taken on a line corresponding to 5 5, Fig. 4, but with the flanged sleeve in position on the cylinder and showing how the said parts are interlocked while at the same time flush surfaces are maintained, all as hereinafter more fully described.

A is the main portion or body of the hub,

and consists of a plain straight tube or cylinder drawn from a piece of sheet-steel and made of any length or size desired, according to the character and use of the wheel.

B represents a flanged sleeve or collar threaded exteriorly to carry the sprocket-wheel for driving the machine, and C is a corresponding sleeve or collar fitted upon the other end of the tube A. Both these sleeves are shown in this instance as fitted snugly upon the tube A, and are provided with flanges 2 about their inner edge adapted to attach or connect the wire spokes, as usual in this class of wheels.

One of the points of advantage and value claimed for this invention is its cheapness of construction as compared especially with the turned-down hub, there being no expensive or elaborate handwork required to produce the hub and the manner of connecting the parts being especially simple, though very effective. Thus, referring to Figs. 1 and 2, we see the ends of tube A formed with a series of projections 4 and recesses or notches 5, alternately, and in this instance about equal in size—that is, the projection 4 has about the same area as the recess 5; but I do not mean to be thus limited in the proportions of either, and they may be varied in size at either or both ends of the hub and in both tube and sleeve without departing from the spirit of the invention. The projections 4 engage in recesses 6 between the projections 7 on the sleeves B and C, while the projections 7 engage in like manner between the projections 4 in recesses 5 in the ends of tube A.

Now, referring to Figs. 5 and 6, it will be seen how these engagements are made and how it occurs that when the construction is completed the sleeves B and C are as securely fastened to tube A and C, and the union therewith is practically as perfect in every essential particular as if it were an integral part with said tube. Thus in forming the sleeves B and C the projections 7 are bent inward at right angles about midway of their length, the depth of the right-angled portion, however, being carefully limited to the gage or thickness of the stock in tube A, thereby bringing said projections or teeth flush with the inside surface of said tube, as seen at a,

Fig. 5. Then the same construction exactly is given to projections 4, which are bent outward in like manner at right angles and engage flush with the circular exterior of tube A, as seen at c, Figs. 5 and 6. The said projections 4 and 7 also fit closely and interlock laterally, and thus the sleeves B and C are permanently and firmly locked together. The product of this union is as essentially one as if it were made in a single piece, and has all the strength and utility and possesses all the advantages of the best hubs known, with the special and distinguishing advantage of extreme lightness, not found in the turned-up hubs, and the further advantage of cheapness, as before described.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a tubular wheel-hub for bicycles and the like, a tube forming the body of the hub having outward projections, and the flanged sleeve over said tube having inward projections flush therewith on the end of said tube interlocked with the said outward projections, substantially as described.

2. The hub described consisting essentially

of a tube with a series of right-angled projections at each end, and open recesses between said projections, in combination with sleeves interlocked with said projections, substantially as described.

3. A wheel-hub consisting of a plain tube provided with outward projections at its ends and recesses between said projections, in combination with flanged sleeves on the ends of said tube having recesses and inward projections to match the recesses and outward projections of the said tube and interlocked therewith, substantially as described.

4. In a wheel-hub, a plain tube and a sleeve fitted closely on said tube, said parts each having interlocking projections at right angles to the axis of the tube and flush with the inside of said tube, and the outside of said sleeve, respectively, substantially as described.

Witness my hand to the foregoing specification this 13th day of July, 1896.

NEFF E. PARISH.

Witnesses:

H. T. FISHER,
R. B. MOSER.