No. 743,843. PATENTED NOV. 10, 1903.

G. M. ELLIOTT.

WHEEL HUB.

APPLICATION FILED JAN. 22, 1903.

NO MODEL.

Fig. 1,

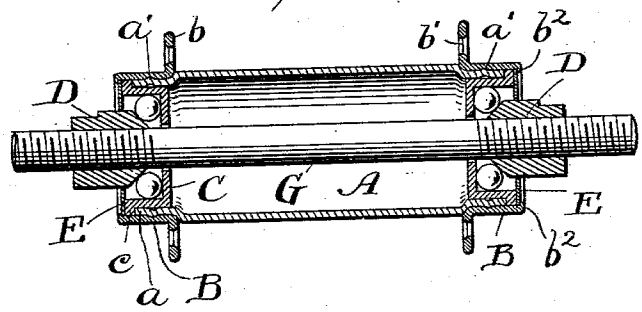


Fig. 2,

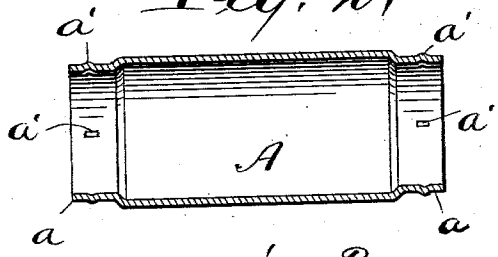
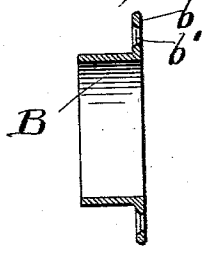


Fig. 3,



Witnesses
E. B. Gilchrist
N. L. Pressman

Inventor
Gettis M. Elliott,
By his Attorneys,
Thurston & Bates.

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

No. 743,843. Patented November 10, 1903.

UNITED STATES PATENT OFFICE.

GETTISE M. ELLIOTT, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE FEDERAL MANUFACTURING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF NEW JERSEY.

WHEEL-HUB.

SPECIFICATION forming part of Letters Patent No. 743,843, dated November 10, 1903.

Application filed January 22, 1903. Serial No. 140,069. (No model.)

To all whom it may concern:

Be it known that I, GETTISE M. ELLIOTT, 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 Wheel-Hubs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of the invention is to provide an exceedingly cheap and simple built-up wrought-metal wheel-hub adapted for ball-bearings.

The invention may be here summarized as consisting in the construction and combination of parts hereinafter described, and set forth definitely in the claims.

In the drawings, Figure 1 is a longitudinal section through the center of the hub, showing all the parts in position. Fig. 2 is a longitudinal section of the barrel, and Fig. 3 is a longitudinal section of one of the flanged sleeves.

Referring to the parts by letters, A represents a wrought-metal barrel, whose end portions *a* are reduced in diameter by spinning or by some other suitable method.

B B represent sleeves which are fitted onto the reduced end portions of said barrel, abutting the shoulders on the barrel formed by reducing the diameter of the said end portions. These sleeves in the construction shown are held against rotation by means of bosses *a'* forced out from the reduced ends of the barrel into the metal of the sleeves. Each sleeve has on its inner end an integral annular flange *b*, with which the wheel-spokes are connected. Preferably these flanges are perforated, as at *b'*, to permit the ends of the spokes to pass through them. Each sleeve is longer than the reduced end of the barrel on which it is secured, and therefore overhangs the same and forms at the ends of the barrels, but within these overhanging portions of the sleeves, annular recesses in which the flanges *c* of the ball-bearing cups C are accommodated. The ball-bearing cups C are forced into the reduced ends of the barrel, and thereby they serve to hold said reduced ends in intimate contact with the surrounding sleeves. As stated, these ball-bearing cups are provided with external annular flanges *c* on their outer edges, which lie within the recesses referred to and abut against the extreme ends of the barrel. A ring E, having a central opening just large enough to accommodate the cones D which are to coöperate with each ball-bearing cup, is inserted into this recess in the overhanging ends of the sleeves and into contact with the outer edges of the ball-bearing cups, and said rings and cups are held in the position shown by the turned-in ends b^2 of said sleeves. The cones D and the axle G are of the usual construction. When the spokes are attached to the flanges *b* on the sleeves B and to the wheel-rim and are tightened up, they also serve to hold the flanged sleeves on the barrel and against the shoulder thereon, and thereby help to hold all the parts in the described positions.

Having described my invention, I claim—

1. In a wheel-hub, the combination with a wrought-metal barrel having reduced end portions, flanged sleeves secured upon said reduced end portions and overhanging the same, ball-bearing cups fitted into the reduced end portions of said barrels and having external flanges which abut the ends of said barrels and lie within the overhanging parts of said sleeves, the outer ends of said sleeves being turned inward to hold said cups in, substantially as specified.

2. In a wheel-hub, the combination of a wrought-metal barrel having its end portions reduced in diameter, flanged sleeves secured upon said reduced end portions and overhanging the same, ball-bearing cups fitted in the reduced end portions of said barrels, and having external flanges which abut the ends of said barrel and lie within the overhanging parts of said sleeves, and rings E also within the overhanging parts of said sleeves, the ends of said sleeves being bent inward against said rings, substantially as specified.

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

GETTISE M. ELLIOTT.

Witnesses:
H. J. CASSADY,
ABBIE E. JOHNSON.