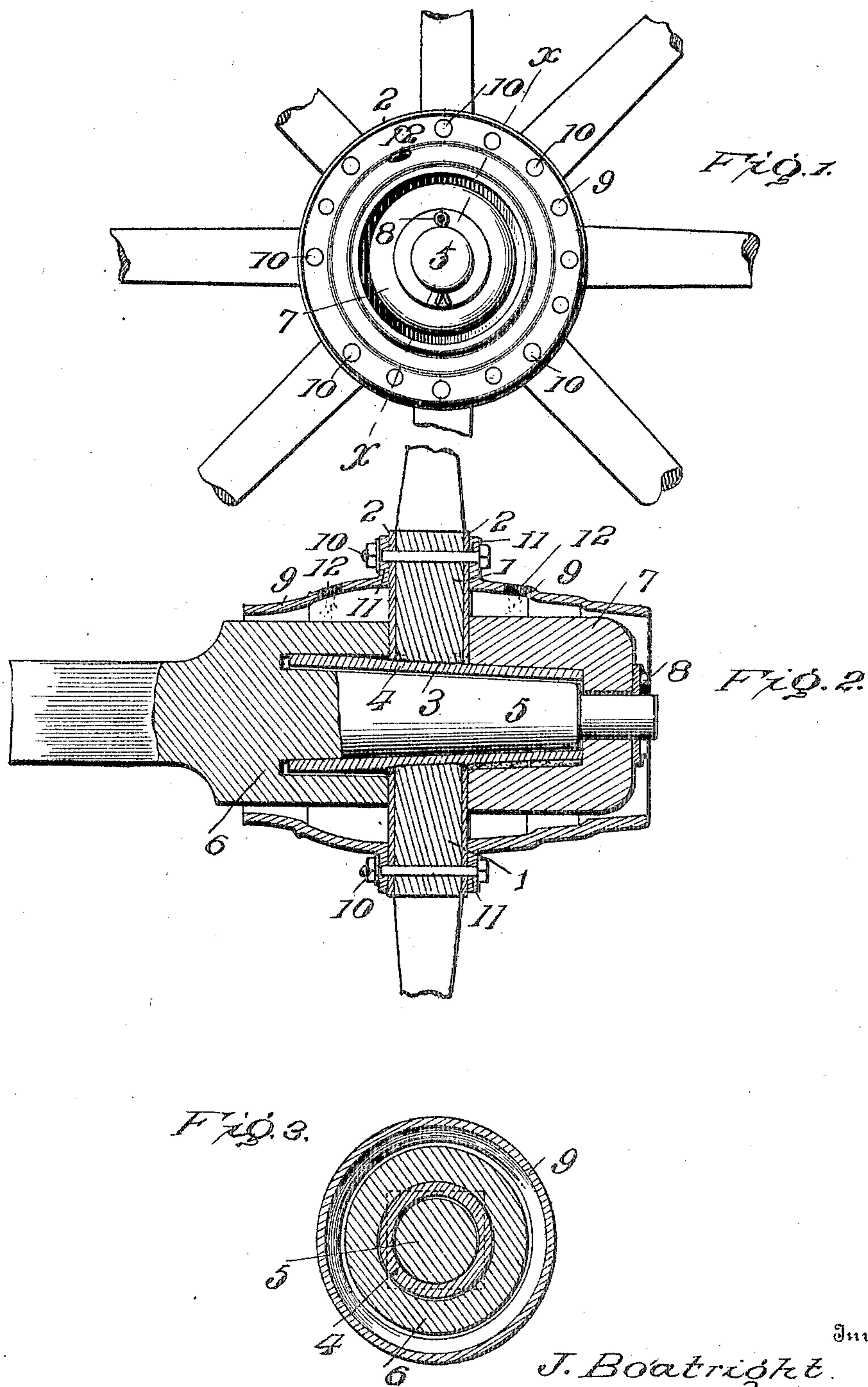


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J. BOATRIGHT.
HUB AND SPINDLE.
APPLICATION FILED JULY 12, 1905.



Inventor

J. Boatright.

Witnesses

W. N. Woodson

By

R. A. B. Carey, Attorneys

UNITED STATES PATENT OFFICE.

JACOB BOATRIGT, OF JOPLIN, MISSOURI.

HUB AND SPINDLE.

No. 811,541.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed July 12, 1905. Serial No. 269,355.

To all whom it may concern:

Be it known that I, JACOB BOATRIGT, a citizen of the United States, residing at Joplin, in the county of Jasper and State of Missouri, have invented certain new and useful Improvements in Hubs and Spindles, of which the following is a specification.

This invention relates to vehicles, and more particularly to an improved hub and axle-spindle.

As commonly constructed practically the entire weight is borne by the lower side of the spindle, with the result that all the wear is concentrated at one point.

The object of this invention is to produce a device of this character in which the weight will be more broadly distributed and which will hence be more durable in construction, which will prevent any wobbling of the wheels, and which will be practically dust and water proof.

With these objects in view the device consists, essentially, of a hub having a tubular member passed therethrough which projects outwardly from each side, and of cup-shaped bearings which are placed upon the axle-spindle and embrace the ends of the tubular member in the hub.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a front elevation of a hub embodying my invention. Fig. 2 is a longitudinal sectional view on the line X X of Fig. 1. Fig. 3 is a transverse sectional view showing the operation of the device.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numeral 1 designates a circular disk, which may be constructed of wood or other suitable material and which is adapted to receive the spokes of the wheel. This disk 1 is reinforced by metal plates 2, rigidly secured to both sides thereof, and is provided at its center point with an opening 3, through which a tubular member is passed. This tubular member is securely fastened to the disk and projects outwardly on both sides thereof. The axle-spindle 5 passes through this tubular member and is provided on its inner end with a cup-shaped bearing 6, which is

permanently fastened thereto and fits around the end of the tubular member 4. A similar cup-shaped bearing 7 is removably attached to the outer end of the spindle and is adapted to embrace the other end of the tubular member 4. The outer cup-shaped bearing is held in position by means of a pin 8, which passes through a transverse opening in the end of the spindle. Metallic casings 9 fit around the bearings on each side of the hub and are secured in position by means of a number of bolts 10, passing through openings in flanges 11, which fit against the disk 1. The casings serve to exclude all dirt and moisture and are provided with openings 12 for the insertion of oil or other lubricating substance. Owing to the fact that the cup-shaped bearings fit around and rest on top of the projecting ends of the tubular member 4, the weight is equally distributed between the ends of the tubular member 4. Hence the lightness of draft and the durability of the device are greatly increased.

Having thus described the invention, what is claimed as new is—

1. In a device of the character described, the combination of a spoke-receiving disk, reinforcing-plates upon each side thereof, a tubular member passing through the spoke-receiving disk and projecting outwardly on both sides thereof, an axle-spindle passing through the tubular member, a cup-shaped bearing formed integral upon the inner end of the spindle, and a similar cup-shaped member removably mounted upon the outer end of the spindle, said cup-shaped bearings embracing the projecting ends of the tubular member and fitting against the reinforcing-plates upon opposite sides of the spoke-receiving disk.

2. In a device of the character described, the combination of a spoke-receiving member, reinforcing-plates upon each side thereof, a tubular member passing through the spoke-receiving member and projecting outwardly on both sides thereof, a spindle passing through the tubular member, cup-shaped bearings mounted upon the spindle and embracing the projecting ends of the tubular member, and a casing secured upon each side of the spoke-receiving member, said casings projecting over the bearings and being spaced therefrom.

3. In a device of the character described, the combination of a spoke-receiving member, reinforcing-plates upon each side there-

of, a tubular member passing through the spoke-receiving member and projecting outwardly on both sides thereof, a spindle passing through the tubular member, cup-shaped
5 bearings mounted upon the spindle and embracing the projecting ends of the tubular member, and a casing secured upon each side of the spoke-receiving member and projecting outwardly over the bearings, and fastening

members passing through the spoke-receiving member, reinforcing-plates, and casings.

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

JACOB BOATRIGHT. [L. S.]

Witnesses:

H. C. OSBORN,
C. H. BRADLY.