

No. 700,376.

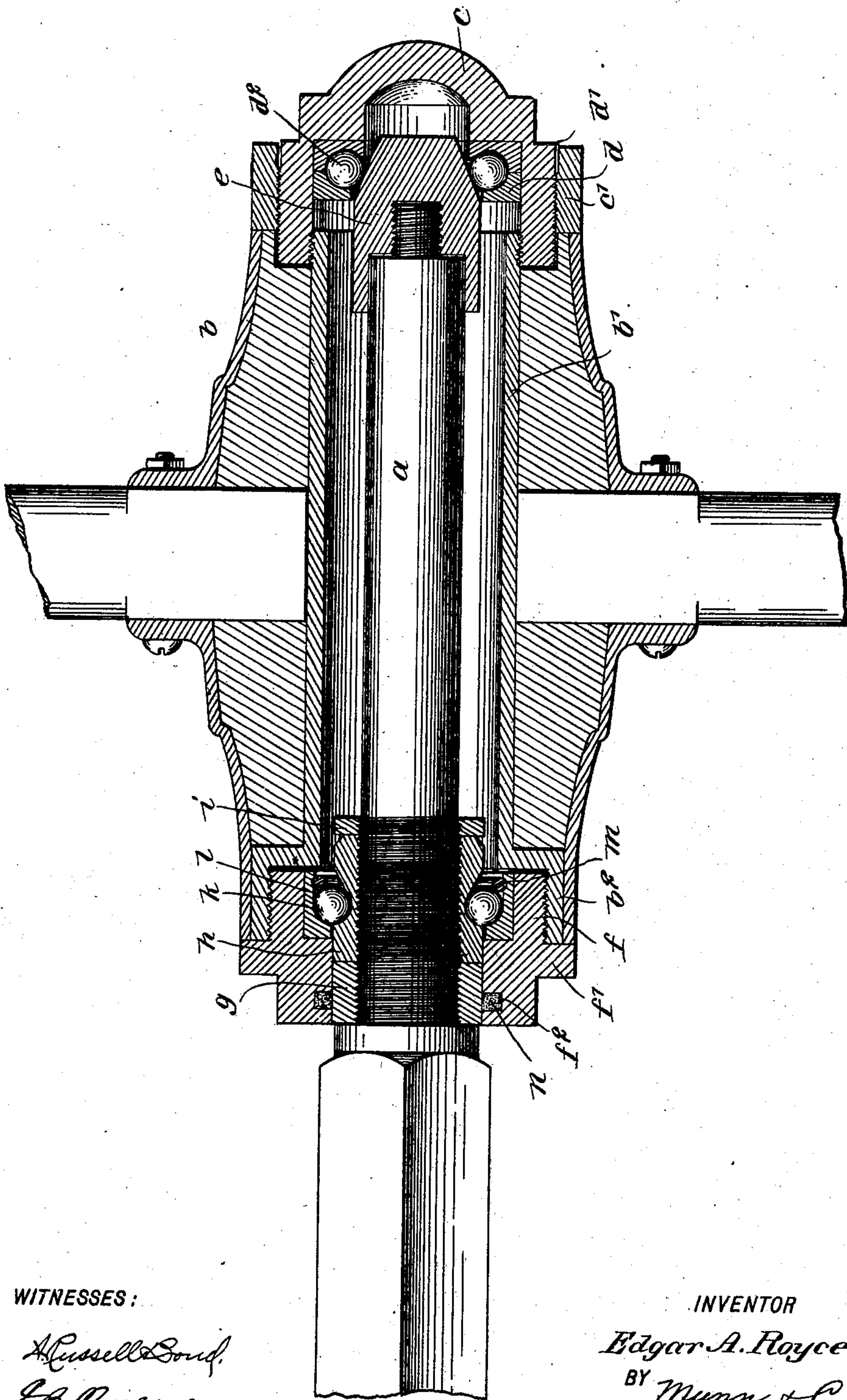
Patented May 20, 1902.

E. A. ROYCE.

WHEEL HUB.

(Application filed July 6, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDGAR AUSTIN ROYCE, OF EXCELSIOR SPRINGS, MISSOURI.

WHEEL-HUB.

SPECIFICATION forming part of Letters Patent No. 700,376, dated May 20, 1902.

Application filed July 6, 1901. Serial No. 67,289. (No model.)

To all whom it may concern:

Be it known that I, EDGAR AUSTIN ROYCE, a citizen of the United States, and a resident of Excelsior Springs, in the county of Clay and State of Missouri, have invented a new and Improved Wheel-Hub, of which the following is a full, clear, and exact description.

This invention relates to a wheel-hub having certain novel means for mounting it to turn with a minimum degree of friction.

This specification is a specific description of one form of the invention, while the claim is a definition of the actual scope thereof.

Reference is to be had to the accompanying drawing, forming a part of this specification, which represents a longitudinal section of the invention.

a represents the axle or spindle on which the wheel is mounted, and b indicates the hub of the wheel. The wheel-hub b may, if desired, be of the Sarven type, although this is not essential to my invention. The hub carries an interior shell b' , over the outer end of which is screwed a cap c , held in place by a lock-nut c' , said cap inclosing the outer end of the shell b' and the lock-nut bearing against the outer extremity of the hub. This cap c carries within it two matching ball-rings d and d' , between which are received a series of bearing-balls d^2 . These balls bear against a tapered plug e , which is screwed on the outer end of the spindle a and inclosed within the cap c .

The inner end of the shell b' has an interior enlargement b^2 , within which is screwed a collar f , provided with an annular exterior flange f' , bearing firmly against the inner extremity of the hub b . The inner end of the spindle a is threaded, and on this portion are screwed two collars g and h , held against the shoulder of the spindle by a lock-nut i . The collar h is formed with an annular groove, in which are carried the bearing-balls k , running against the inner surface of an annulus

l , held similarly within the collar f . m indicates a ball-retainer, which is fitted between the parts k and l and which serves to hold the bearing-balls k in place.

The various parts which are engaged by the bearing-balls d^2 and k are preferably formed of hardened steel, and for the purpose of excluding dust from the interior of the hub I provide a packing-gasket n , seated in an annular groove f^2 , formed in the collar f and bearing on the collar g . This gasket is preferably constructed of compressed felt. The various parts of the hub may be readily taken apart for repair and adjustment; and when one part has become worn, so that it no longer operates with perfect satisfaction, it may be easily taken out and a new part substituted without affecting the other elements.

Various changes in the form, proportions, and minor details of my invention may be resorted to without departing from the spirit and scope of my invention. Hence I consider myself entitled to all such variations as may lie within the scope of my claim.

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

The combination of an axle, a wheel-hub encircling it, bearing devices for mounting the inner end of the hub to turn on the axle, a plug fastened on the outer extremity of the axle and tapered toward its outer end, a cap secured to the outer end of the wheel-hub to close it and inclosing the plug, and bearing-balls held in the cap and running between it and the tapered surface of the plug.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDGAR AUSTIN ROYCE.

Witnesses:

WILLIAM T. MCROREY,
W. L. SILVERS.