

No. 665,911.

Patented Jan. 15, 1901.

J. H. JACKSON.
VEHICLE WHEEL.

(No Model.)

(Application filed Sept. 24, 1900.)

2 Sheets—Sheet 1.

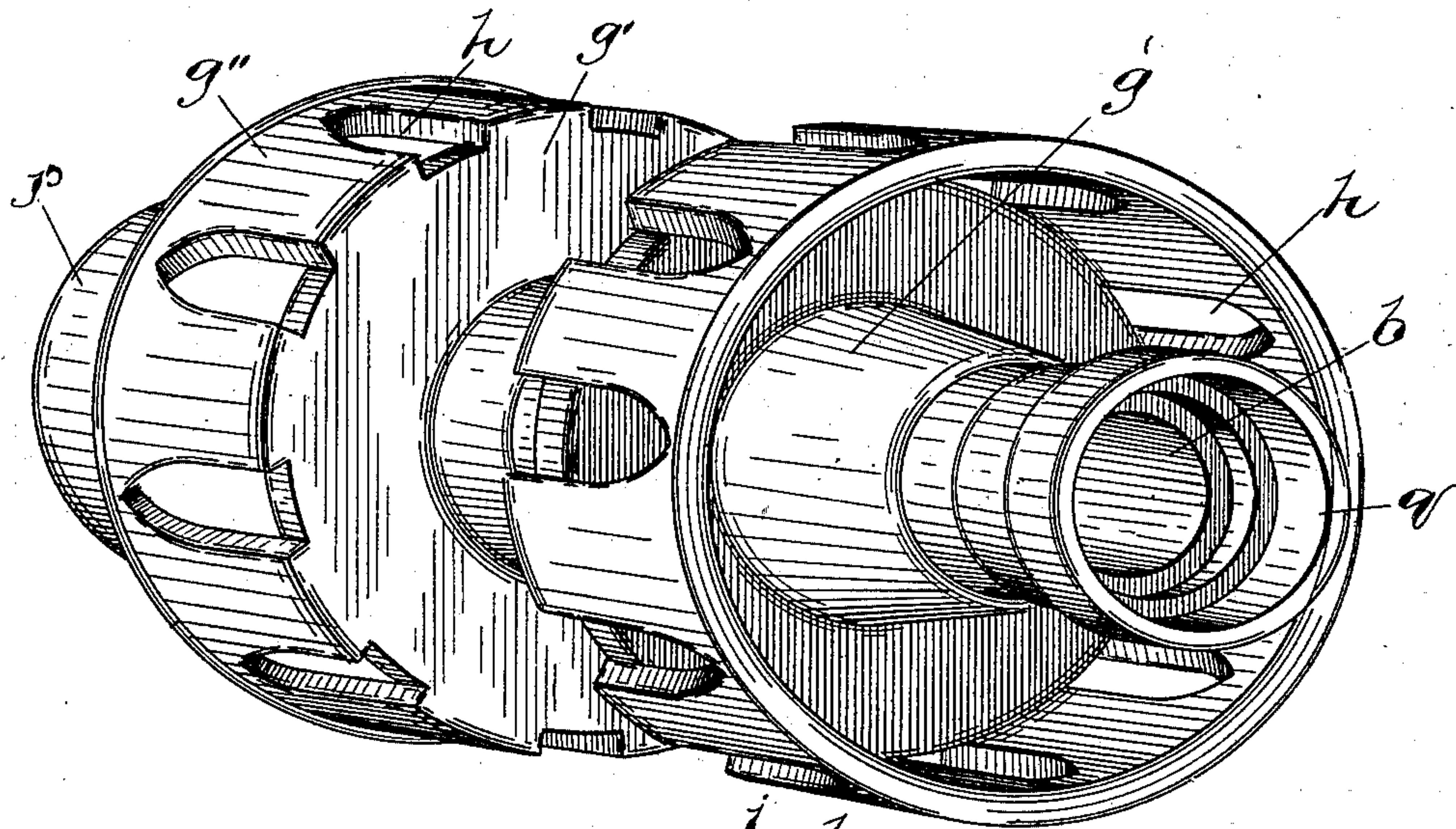


Fig. 1

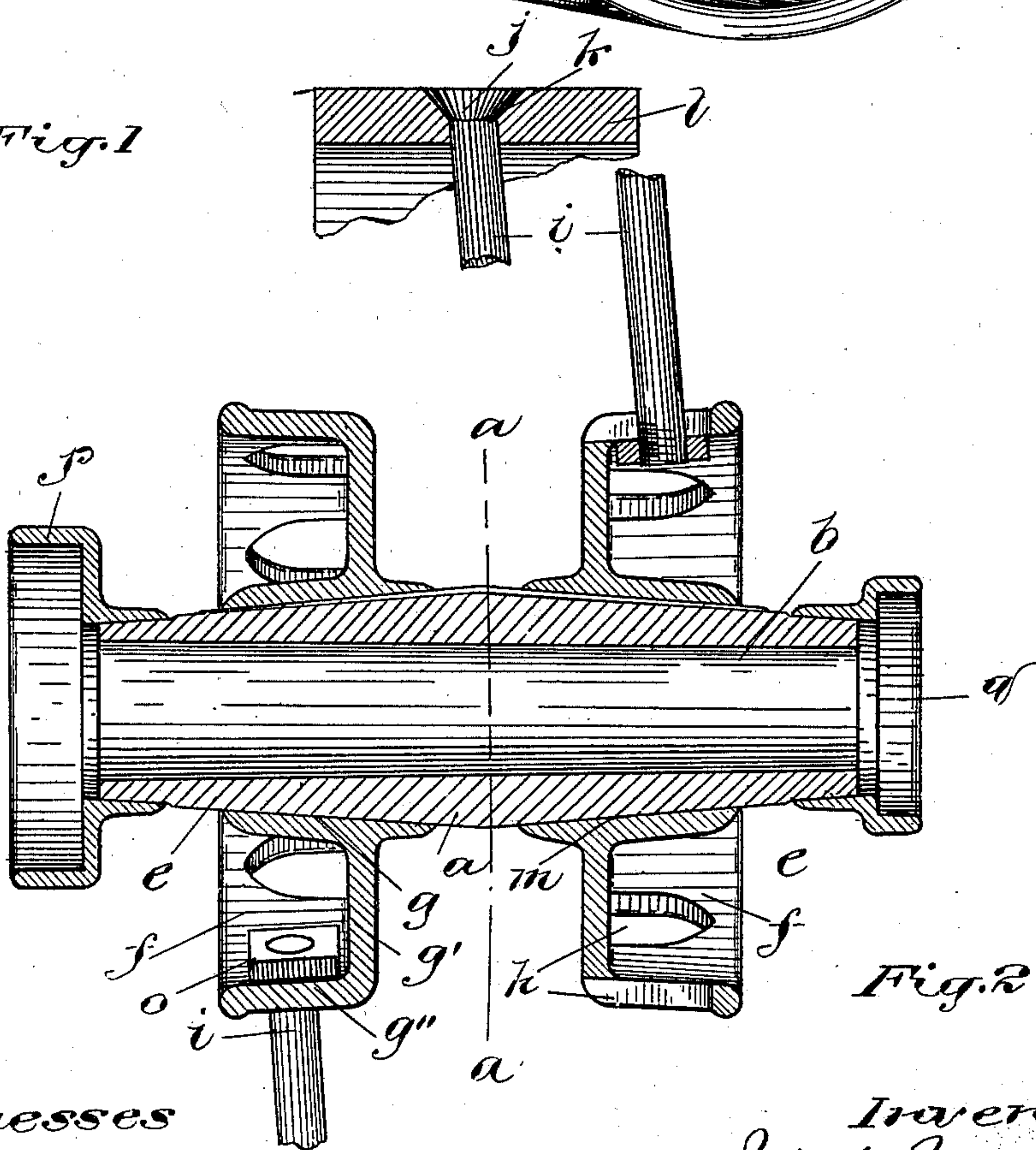


Fig. 2

Witnesses

G. Snyder

J. E. Cameron

Inventor

J. H. Jackson
by C. H. Rees
his atty.

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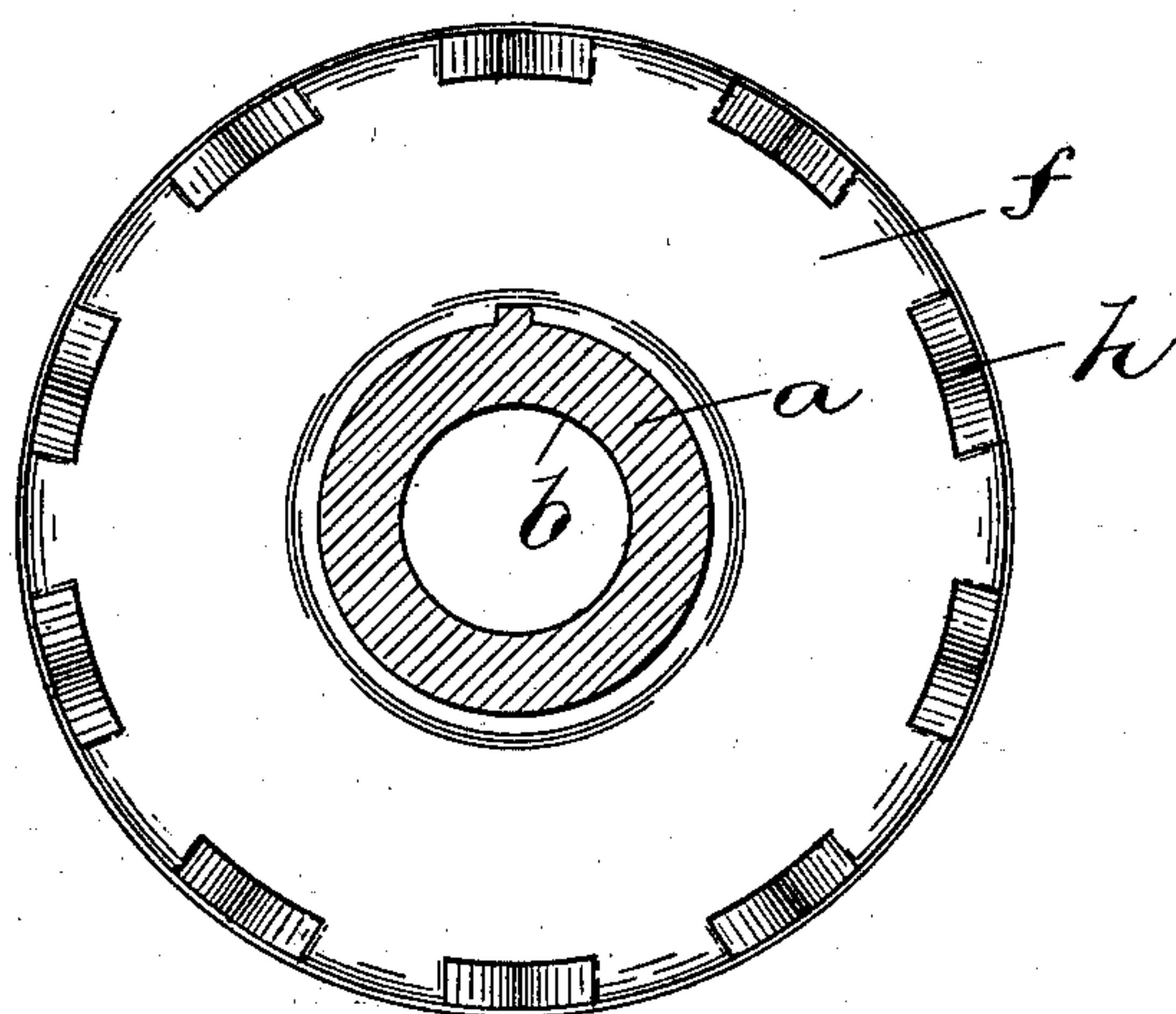


Fig. 3.

Witnesses

G. Snyder

J. E. Cameron

Inventor

J. H. Jackson

by C. H. Riches

his atty

UNITED STATES PATENT OFFICE.

JAMES H. JACKSON, OF KEADY, CANADA.

VEHICLE-WHEEL.

SPECIFICATION forming part of Letters Patent No. 665,911, dated January 15, 1901.

Application filed September 24, 1900. Serial No. 30,983. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. JACKSON, a subject of the Queen of Great Britain, whose post-office address is Keady, in the county of Grey and Province of Ontario, Canada, have invented certain new and useful Improvements in Vehicle-Wheels; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention consists of a vehicle-wheel embracing in its construction a sleeve or boxing the outer face of which is inclined from each end toward the middle and two hub-sections loosely mounted upon the sleeve provided with spoke-holding flanges, the object of the invention being to use the boxing of the axle-arm as a portion of the wheel-hub and to so arrange this boxing or sleeve that the hub-sections will be maintained in position on it solely by the tension of the spokes, as hereinafter more fully set forth, and more particularly pointed out in the claim.

In the drawings, Figure 1 is a perspective view of the hub. Fig. 2 is a broken longitudinal sectional view of the hub-rim and spokes. Fig. 3 is a transverse sectional view on the two lines *a a*, Fig. 2.

Like letters of reference refer to like parts throughout the specification and drawings.

a represents the boxing or sleeve, the outer face of which is provided with two surfaces *e* and *e'*, respectively inclined from the ends toward the middle of the sleeve. Loosely mounted on the surfaces *e* and *e'* are two hub-sections *f* and *f'*, respectively, each of which consists of a hub *g*, a web *g'* at right angles to the hub *g*, and a peripheral flange *g''* at right angles to the web *g'* and preferably concentric with the hub *g*. Each of the flanges *g''* is provided with a series of spoke-sockets *h* to receive the inner ends of the spokes *i*, the outer ends of the spokes being provided with enlarged heads *j*, adapted to enter countersunk holes *k* in the rim or tire *l*. The bore *m* of each of the hubs *g* is less than the greater diameter of the sleeve *a* and greater than the lesser diameter of the same and corresponds in inclination to that of its respective surface of the sleeve. The inner ends of the spokes *i* are provided with nuts *o*, by means of which the spokes are tightened and held to the hub-

sections. The outer face of the sleeve *a* and the bore of the hub-sections are perfectly plain in order that the hub-sections can be quickly placed in position on the sleeve. 55

In assembling the parts the ends of the sleeve are inserted in the bores of the hub-sections, which are then forced toward the middle of the sleeve by any device suitable for that purpose. When the hub-sections are in position, the sleeve completely fills the bores of their hubs, and their outward displacement is prevented by the tension of the spokes. After the hub-sections have been placed in position the inner ends of the spokes are inserted in the spoke-sockets, and the tightening-nuts are placed on the ends of the spokes, which not only hold the spokes in position, but also apply the necessary tension to true the tire or rim. 60 65 70

It is possible in this construction to use the same size of hub-sections with different sizes of boxing and axle-arms—that is to say, it is possible to use the same size hub-sections on a sleeve or boxing for a three-and-a-half-inch, a three-and-three-quarter inch, and a four-inch axle-arm. A hub-section mounted on a sleeve or boxing for a three-and-a-half-inch axle-arm will be closer together than if mounted on a sleeve or boxing for a three-and-three-quarter-inch axle-arm, and they will be closer together when mounted on a sleeve or boxing for a three-and-three-quarter-inch axle-arm than on a sleeve or boxing for a four-inch axle-arm. In other words, the larger the size of the boxing the farther the hub-sections will be spread apart, and the farther the hub-sections are spread apart the greater will be the strength and rigidity of the wheel. 75 80 85

By means of this construction it is possible to use the hub-sections with various sizes of sleeves or boxings without alteration to or trouble in assembling the parts. 90

The bore *b* of the sleeve or boxing *a* tapers from the inner end toward the outer end, making the outer end of the sleeve or boxing slightly thicker than the inner end. By having the bore tapering in the manner described the strength of the outer end of the boxing is increased and the danger of injury to the wheel-hub considerably lessened. The inner end of the sleeve or boxing is provided with 95 100

a sand-collar *p* and the outer end is provided with a nut-band *q*, the collar and band being pressed on the outer face of the sleeve.

5 By means of this construction the wheel can be easily and cheaply manufactured and quickly assembled and yet have sufficient strength and durability to resist all ordinary strains to which the wheel is subjected.

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

15 A vehicle-wheel embracing in its construction a sleeve the outer surface of which tapers from the middle toward the ends, a hub-section loosely mounted upon each of the tapering surfaces of the sleeve provided with a tapering bore corresponding to the taper of the sleeve, an outwardly-directed web for each

section and a peripheral flange at right angles to the web, each flange provided with a series 20 of spoke-sockets to receive the inner ends of the spokes in combination with the rim, spokes the outer ends of which are connected to the rim and the inner ends of which enter the spoke-sockets, tightening-nuts fitted on 25 the inner ends of the spokes bearing against the under side of the peripheral flanges and a sand-collar and nut-band pressed respectively on the inner and outer ends of the sleeve, substantially as specified.

Toronto, Canada, September 10, 1900.

JAMES H. JACKSON.

In presence of—

C. H. RICHES,
G. SNYDER.