

(No Model.)

J. D. ROTH.
HUB FOR VEHICLE WHEELS.

No. 403,613.

Patented May 21, 1889.

Fig. 1.

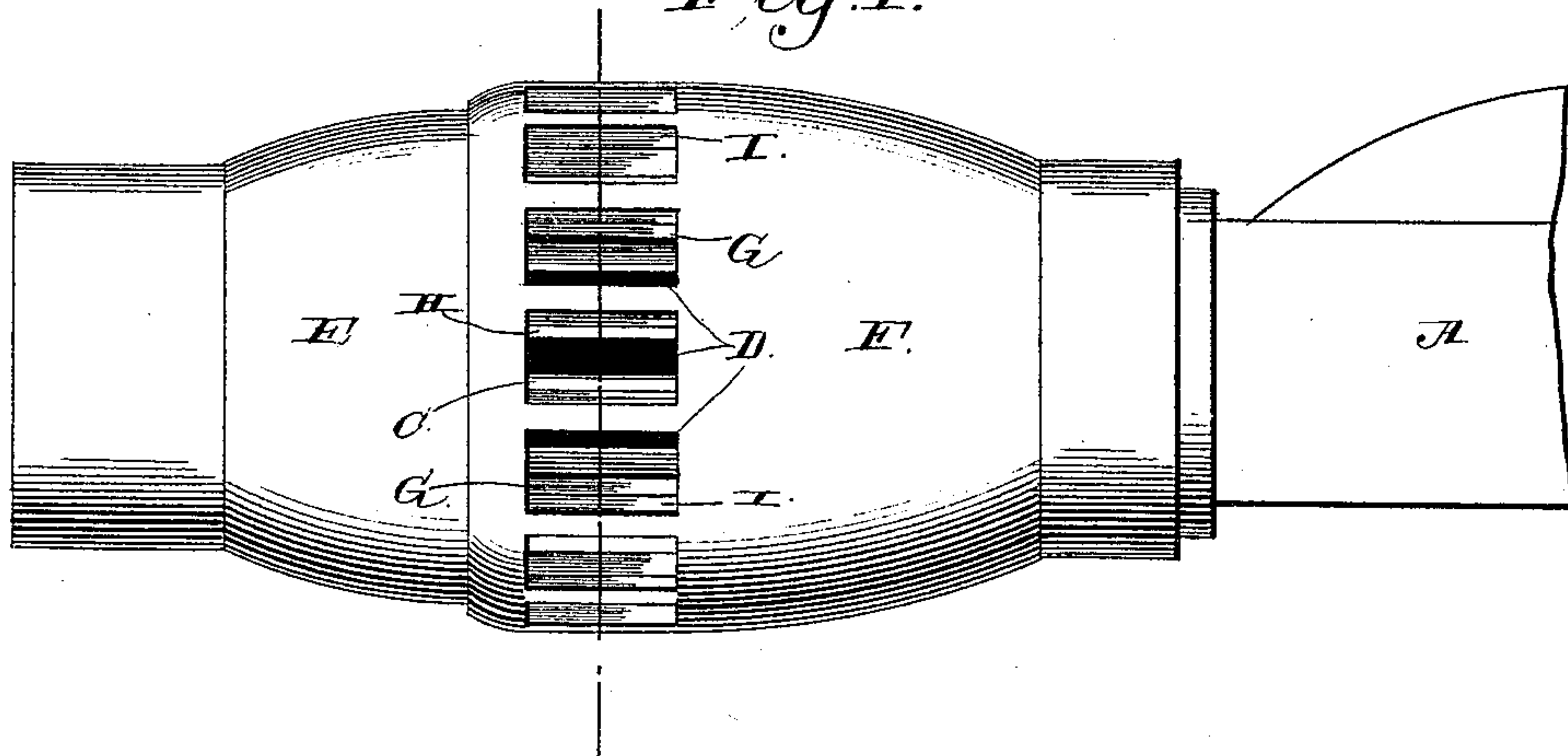


Fig. 2.

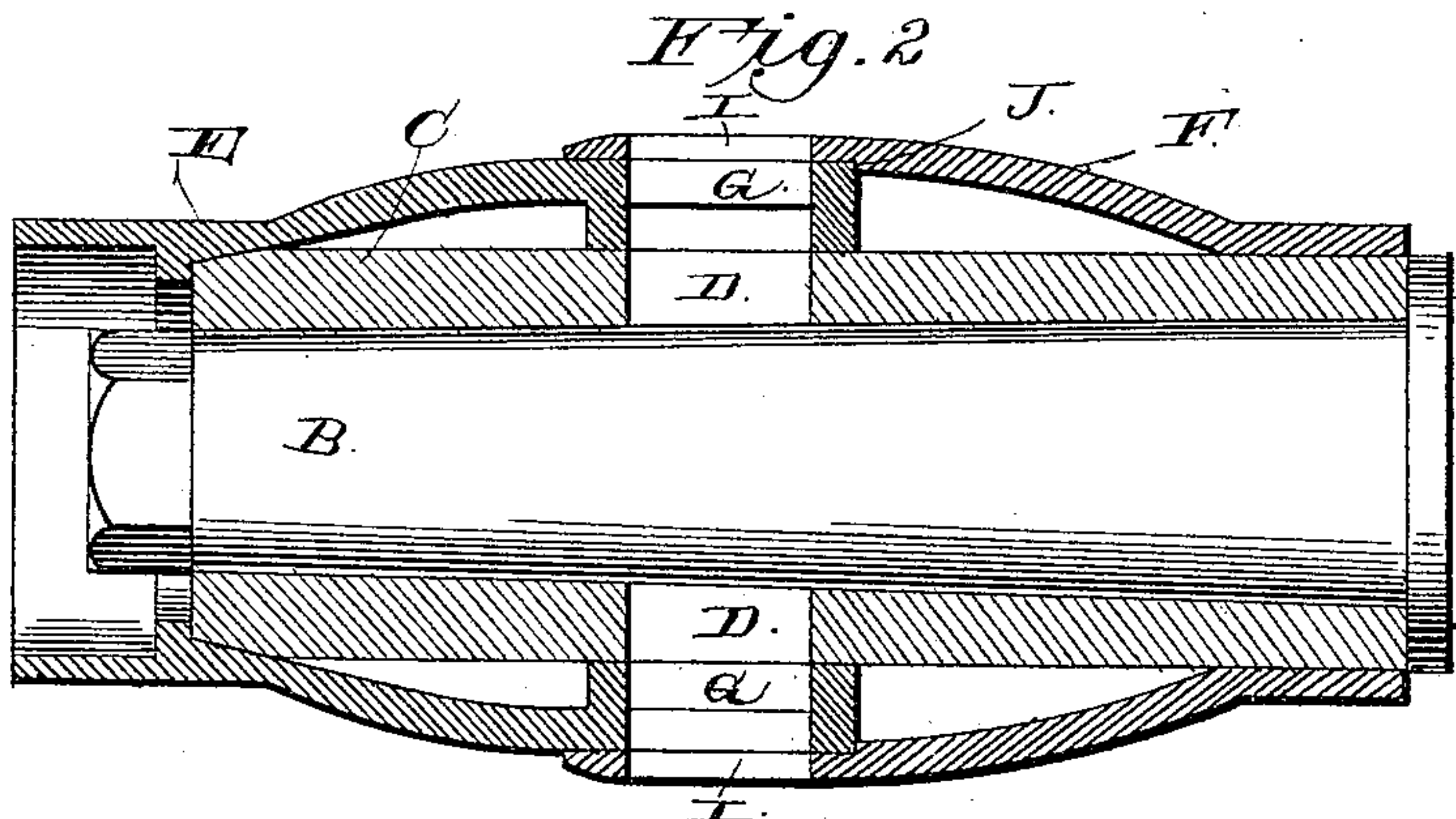


Fig. 3.

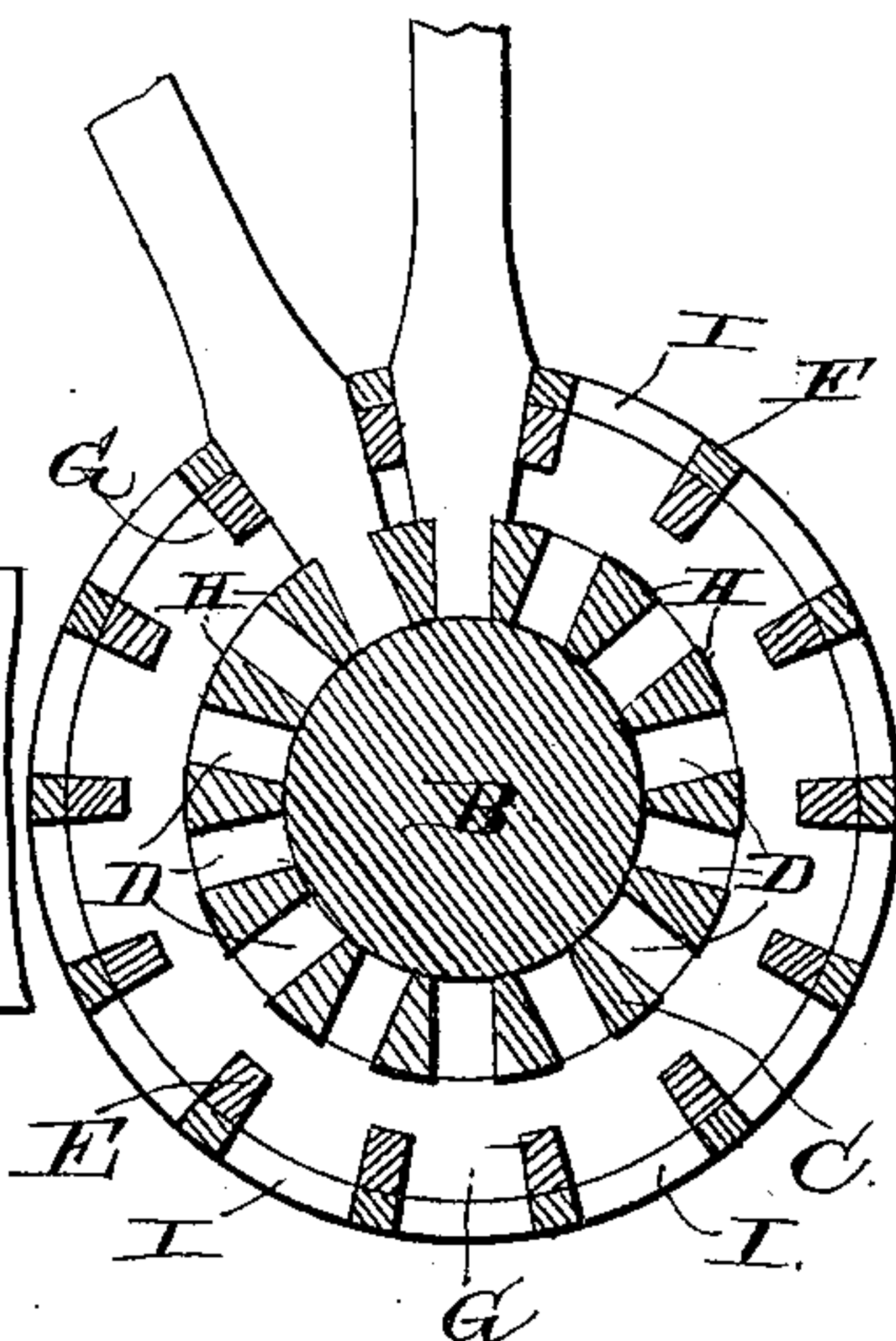
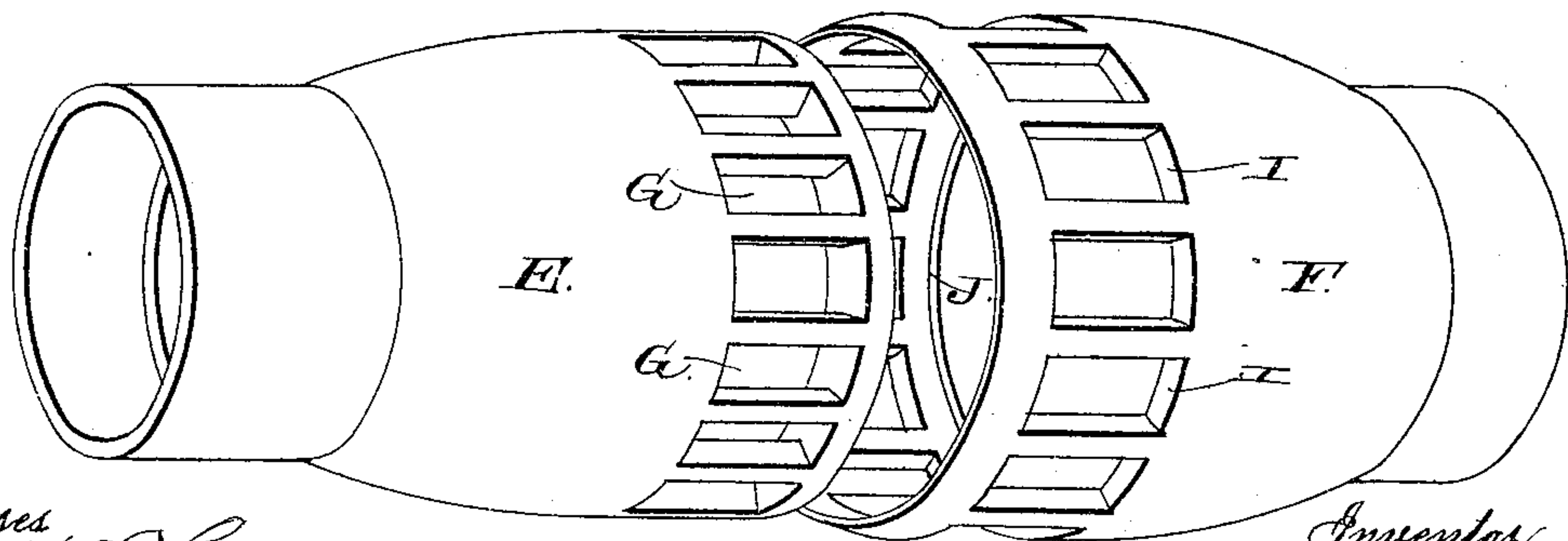


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES D. ROTH, OF NAZARETH, PENNSYLVANIA.

HUB FOR VEHICLE-WHEELS.

SPECIFICATION forming part of Letters Patent No. 403,613, dated May 21, 1889.

Application filed March 13, 1889. Serial No. 303,091. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. ROTH, a citizen of the United States, residing at Nazareth, in the county of Northampton and State of Pennsylvania, have invented new and useful Improvements in Hubs, of which the following is a specification.

My invention relates to improvements in hubs; and it consists in certain novel features, hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of a hub constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a central diametrical section on the line $x x$, Fig. 1; and Fig. 4 is a view showing the shells in perspective.

The axle A is of the usual or any preferred construction, and is provided at its end with the ordinary spindle, B. Upon the spindle a wooden boxing or sleeve, C, is fitted, and said boxing or sleeve is provided with an annular series of longitudinal recesses, D, which receive the ends of the spoke-tenons. Upon the boxing C, I arrange the metallic shells E F, which are adapted to fit snugly on the boxing and have their inner edges or ends overlapping, as clearly shown. The shell E, which is arranged upon the outer end of the boxing, is provided with an annular series of longitudinal openings, G, near its inner edge, which are adapted to register with the recesses D in the boxing, as shown. The partitions between the openings G are smaller than those between the recesses D, so that the edges of the partitions in the boxing will project beyond the sides of the partitions in the shell, and thereby provide shoulders H, adapted to receive the shoulders at the inner ends of the spokes. The shell F is provided near its outer end with an annular series of longitudinal openings, I, of the same size as the openings G, and adapted to coincide therewith. The outer edge of the shell F fits over the inner end of the shell E, and the said shell F is provided near the annular series of openings I with an internal annular shoulder, J, which is adapted to contact with the end of the shell E, and thereby insure the registering of the openings G I by preventing the end of the

shell F projecting too far over the end of the shell E. In practice the shells are fitted on the boxing and the spokes then inserted through the coincident openings G I into the recesses D. The outer shell, F, is then rotated upon the boxing, so as to cause the sides of the openings I to contact with the sides of the spokes, and thereby clamp the spokes into position, as will be readily understood.

From the foregoing description it will be seen that I have provided a hub which is composed of few parts, and the said parts are simple in their construction. The spokes will be securely held in the hub and the hub will possess great strength and durability. The shells prevent the boxing from splitting, and there are no bands to become loose.

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

1. In a hub, the combination of the boxing having an annular series of longitudinal recesses, and the shells fitted on the boxing and having their ends overlapping, and provided with annular series of openings adapted to coincide and register with the recess in the boxing, as set forth.

2. The improved hub herein described and shown, comprising the boxing provided with an annular series of longitudinal recesses, the shell E, fitted on the boxing and provided at its end with an annular series of openings adapted to register with the recesses in the boxing and larger than said recesses, and the shell F, fitted on the boxing and having its end fitting over the end of the shell E, and provided with an annular series of openings coinciding with the openings in the shell E, the said shell F being provided with an internal annular shoulder adapted to contact with the end of the shell E, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES D. ROTH.

Witnesses:

R. H. TRACH,

GEO. W. REICHARD.