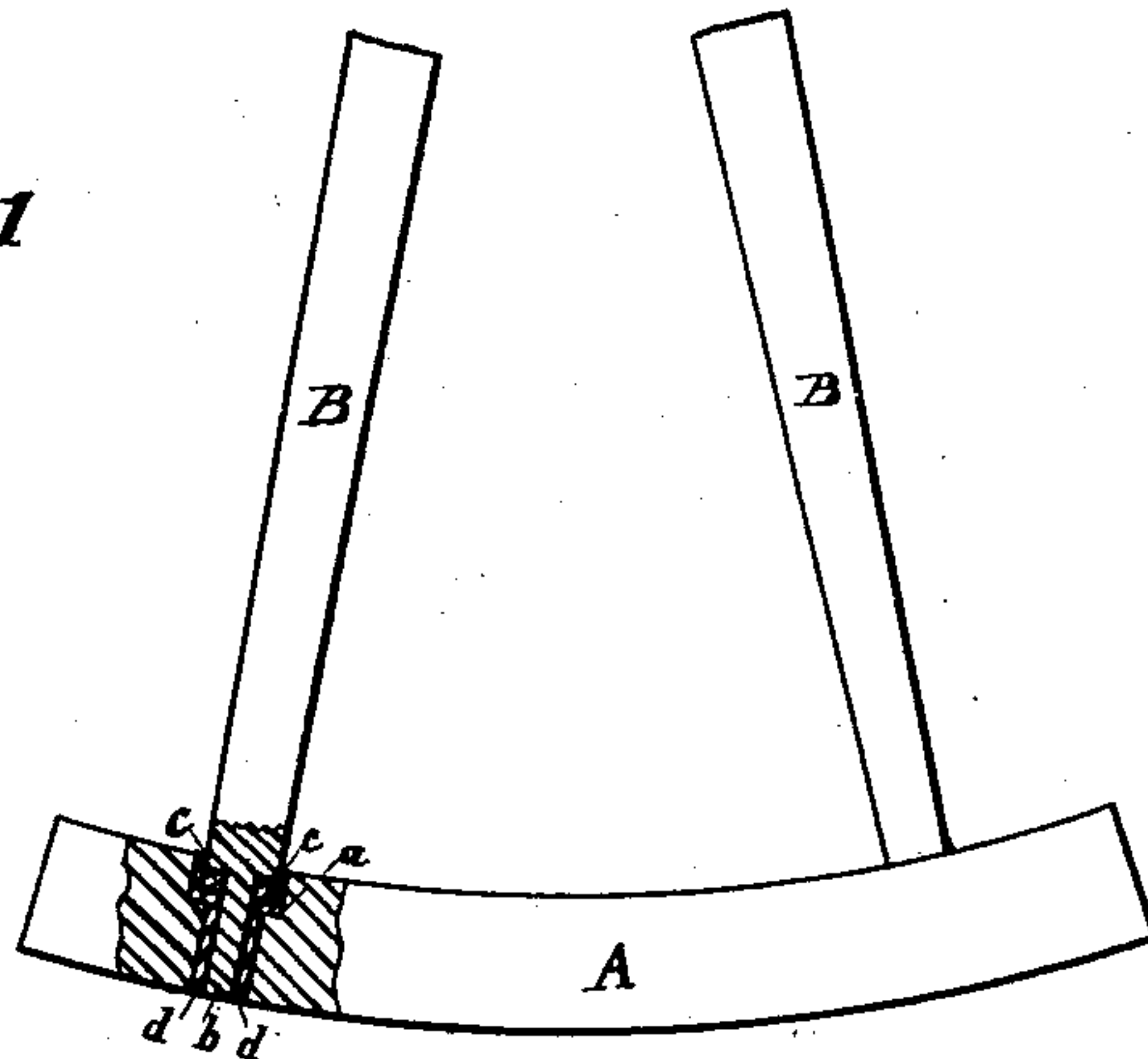


**T. T. FURLONG.**  
**Vehicle-Wheels.**

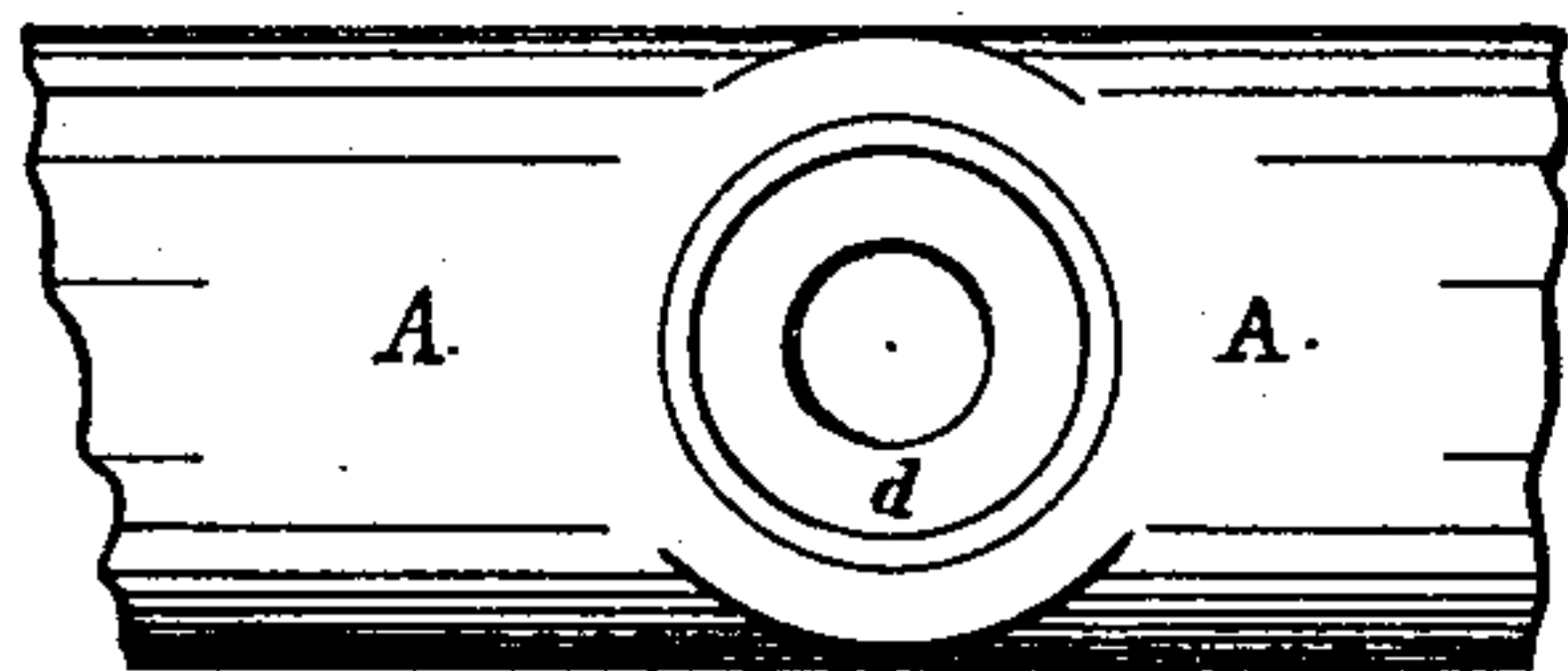
No. 156,992.

Patented Nov. 17, 1874.

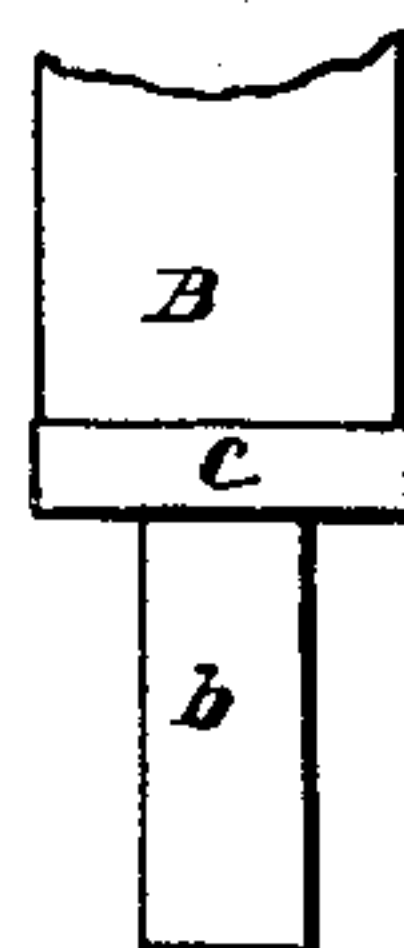
*Fig. 1*



*Fig. 2*



*Fig. 3*



WITNESSES.

*J. H. Lawlor*  
*A. A. Herring*  
"

INVENTOR.

*Thomas T. Furlong*  
*By Gidley & Warner*  
*Atty*

# UNITED STATES PATENT OFFICE.

THOMAS T. FURLONG, OF CHICAGO, ASSIGNOR OF ONE-FOURTH HIS RIGHT  
TO CORNELIUS B. CUMMINGS, OF PEKIN, ILLINOIS.

## IMPROVEMENT IN VEHICLE-WHEELS.

Specification forming part of Letters Patent No. **156,992**, dated November 17, 1874; application filed  
August 25, 1874.

*To all whom it may concern:*

Be it known that I, THOMAS T. FURLONG, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new, useful, and Improved Wheel for Vehicles, of which the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a side elevation of a portion of a vehicle-wheel, with parts broken away to show the connection of the spokes and felly. Fig. 2 is a top view of the felly, showing the form of the mortise therein; and Fig. 3 is a detached elevation of a part of a spoke.

Like letters of reference indicate like parts.

My invention relates to the construction of of wheels for vehicles; and consists in providing each spoke, upon and around the tenon thereof, with an elastic cushion, and in constructing the mortises in the felly in which the spokes are inserted, with an annular shoulder, and inserting in each mortise a metallic bush or lining, as hereinafter more particularly described.

In the drawing, A represents the felly, and B the spokes, of a wheel for vehicles. The felly is provided with the usual number of mortises to receive the spokes. I enlarge the mouth or opening of each mortise, so as to form an annular shoulder, *a*. Upon, around, and at the base of the tenon *b* of each spoke I place an annular elastic cushion, *c*, made of any suitable elastic material, preferably of india-rub-

ber. For the purpose of strengthening, and to prevent brooming and splitting of the felly at the several mortises, I insert a metallic bush or lining, *d*, corresponding to the shape of the mortise, so as to closely fit therein, and flush with the inner periphery of the felly.

In uniting the felly and spokes there is a small space between the end of the tenon *b* and the outer periphery of the felly. The elastic cushion *c* rests upon the shoulder *a* of the bush or lining *d*; and the lower part of the body of the spoke is also inserted in the mortise and bush, as shown, thereby preventing brooming and splitting of the spoke, and strengthening the general construction of the wheel.

The blows or jars that the wheel receives while in use are received through the felly upon the elastic cushion between the felly and spokes, and the wheel is thereby made more durable.

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

The felly of a vehicle-wheel, having the shouldered mortises sunk therein to receive both the tenon *b* and the lower part of the body of the spoke, in combination with the correspondingly-formed bush or lining *d*, sunk in said mortises flush with the inner periphery of the felly, and with the elastic cushion *c*, substantially as described.

THOMAS T. FURLONG.

Witnesses:

N. C. GRIDLEY,  
J. H. LAWLOR.