

JACOB DUMP & ALBERT MOORE.

Improvement in Hubs for Carriage Wheels.

No. 125,727.

Patented April 16, 1872.

Fig. 1.

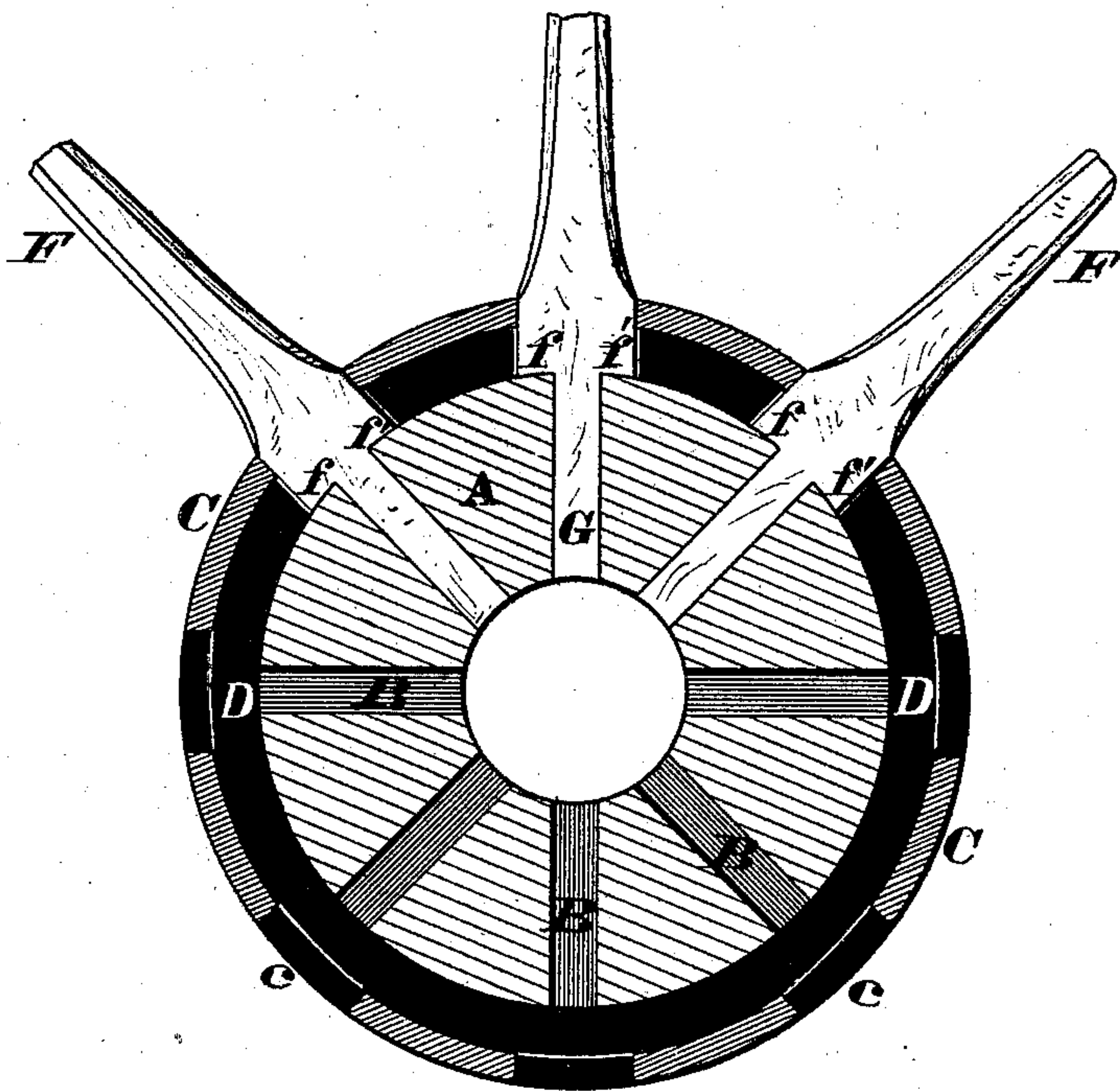
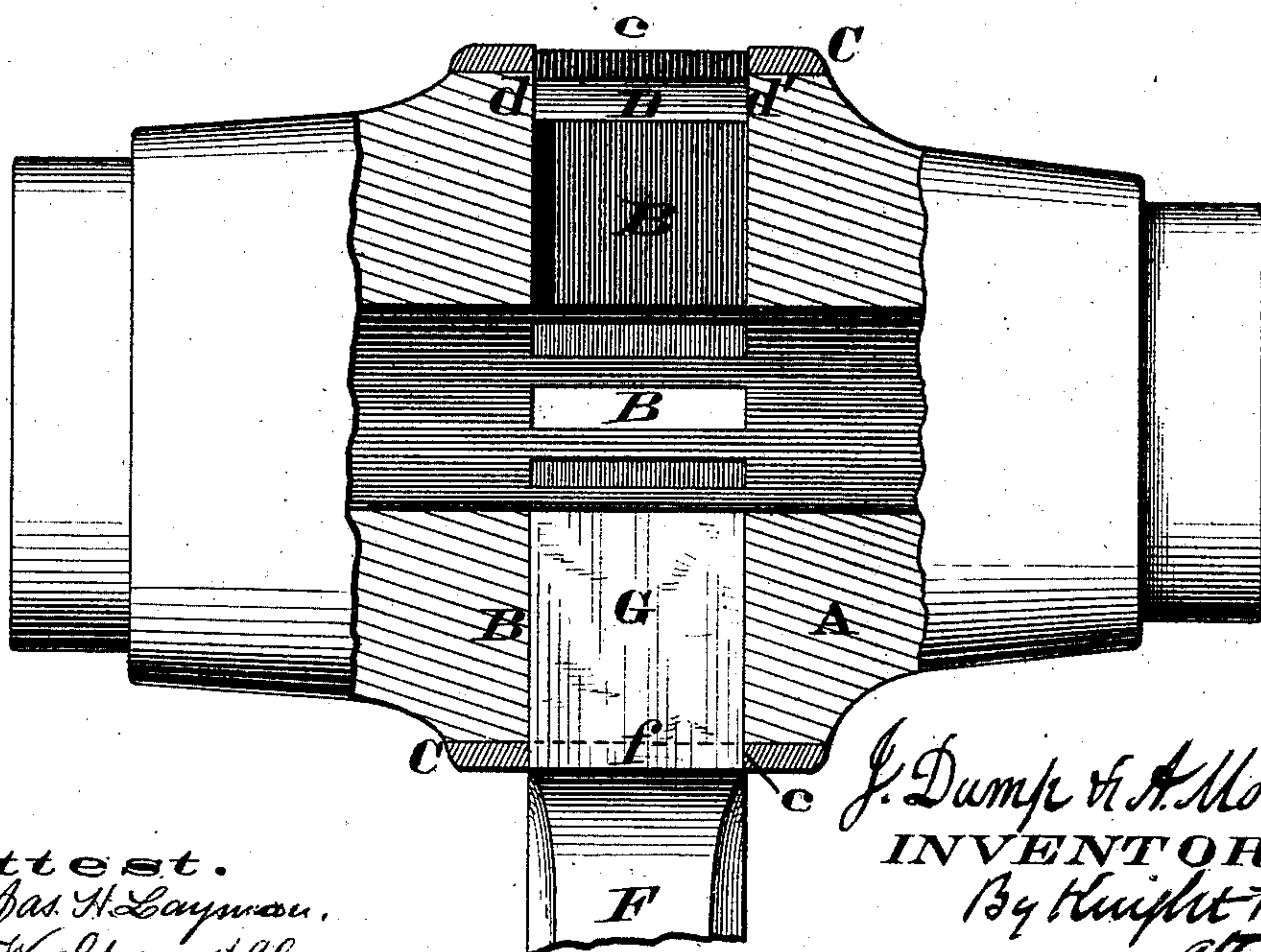


Fig. 2.



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Fig. 3.

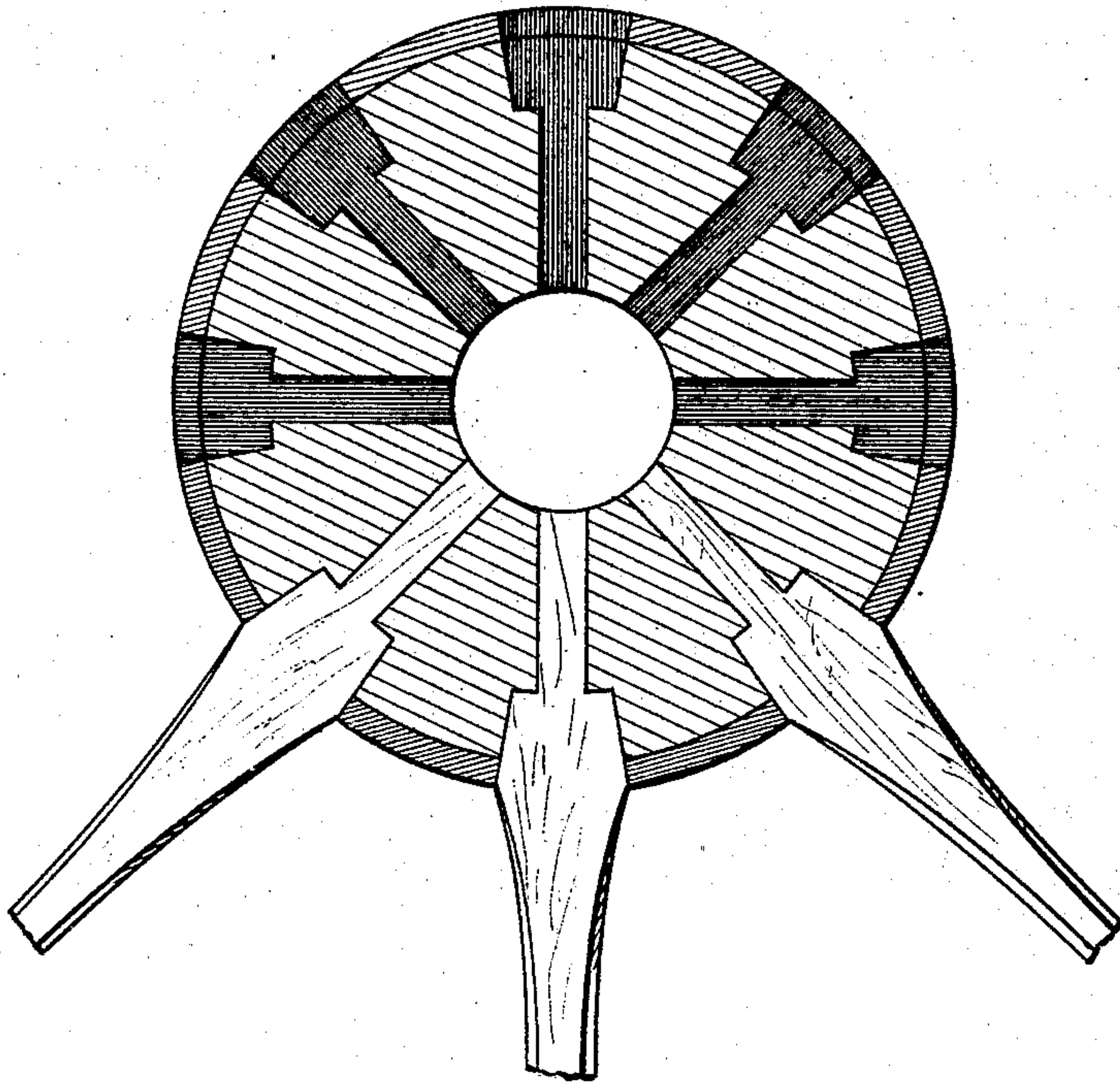
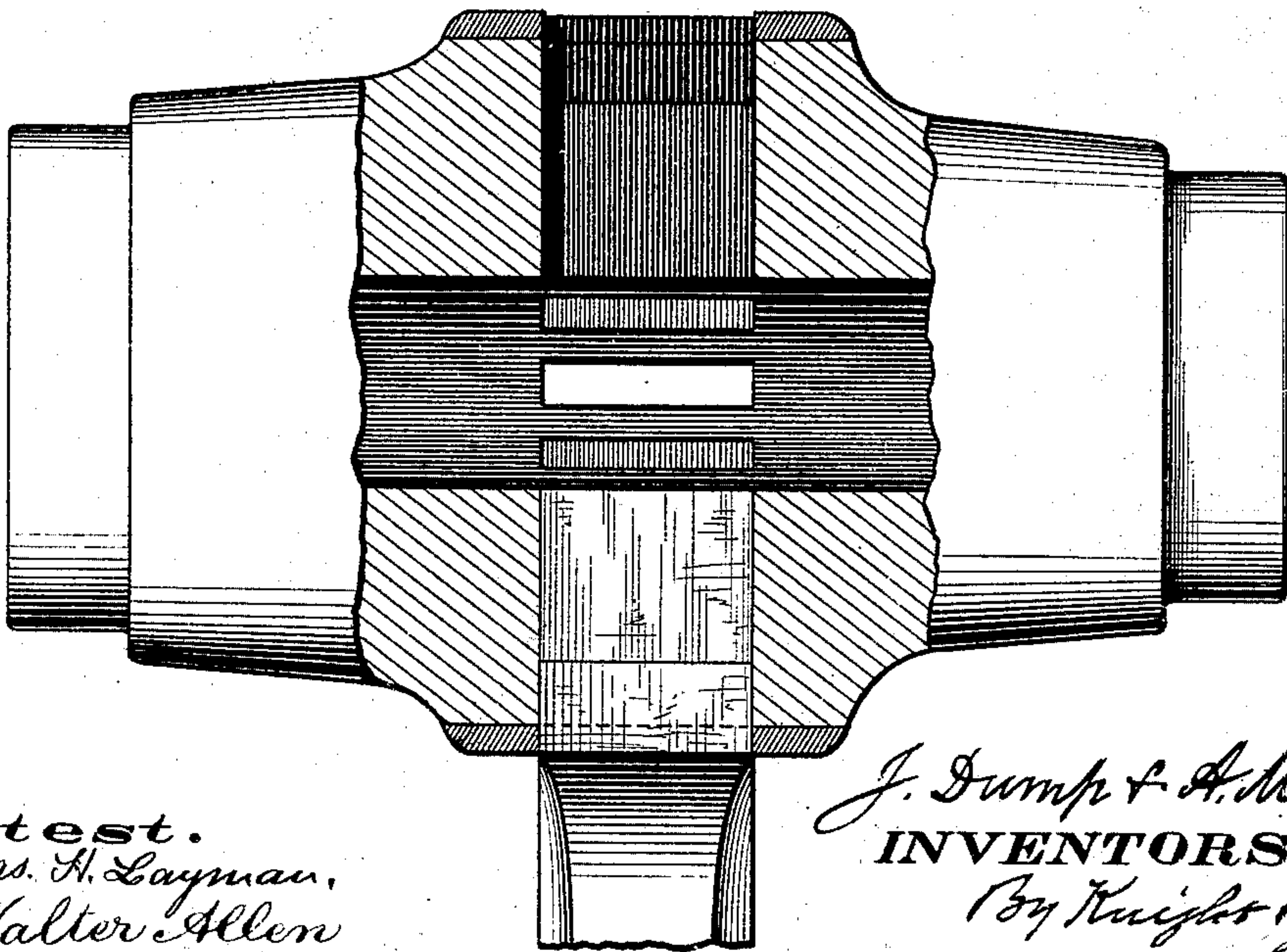


Fig. 4.



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UNITED STATES PATENT OFFICE.

JACOB DUMP AND ALBERT MOORE, OF KINGSTON, OHIO.

IMPROVEMENT IN HUBS FOR CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 125,727, dated April 16, 1872.

We, JACOB DUMP and ALBERT MOORE, both of Kingston, Ross county, Ohio, have invented a certain Improvement in Hubs, of which the following is a specification:

This is an improvement in the class of hubs which have a wooden core, surrounded by light metallic bands or hoops; and our improvement consists in providing said bands with openings, through which the spokes are passed, the latter being furnished with shoulders that bear upon the periphery of the core, and also with tenons that enter suitable mortises in the same, that portion of the core upon which the shoulders bear not coming in contact with the band, but being separated therefrom by an annular recess, whose vertical sides are parallel with the ends of the hub, and afford additional means for maintaining the spoke in its proper position.

Figure 1 is a transverse section of a hub embodying our improvements. Fig. 2 is a partly-sectionized longitudinal elevation of the same, and Figs. 3 and 4 represent a modification of our invention.

A represents the wooden portion or core of the hub, having customary radial mortises B for the reception of tenons on the ends of the spokes, and said mortises may have either parallel or outwardly-flaring sides, as preferred. Fitted upon the outer periphery of this hub is a light iron band or hoop, C, having openings *c*, through which the spokes are inserted to be secured in the wooden core. This band or hoop does not bear upon the wooden core A at all parts of its periphery, but an annular excavation, D, is turned in said core, so as to afford an annular and concentric recess between the exterior of the wooden portion of the hub and the interior of the hoop. The sides or walls *d d'* of this excavation are parallel

with the ends of the hub, and are also in line with the ends of the mortises B, as clearly shown in Fig. 2. F represents the spokes, their inner portions having shoulders *f f'* and tenons G, the latter being adapted to fit into the mortises B, while the former abut against the periphery of excavation D of the core A.

It will be seen from this description that the spokes are maintained in position by the bearings which they have upon and within the wooden core, and in case the latter should shrink or warp so as to lose its proper shape, the spokes will give or yield accordingly, they not being bound within the metallic band C, which latter is no thicker than is necessary for strengthening the hub.

In all composite hubs, where the spokes are mortised and fitted into thick metallic rings, and also into wooden cores, any shrinkage or warping of the latter will injuriously strain, and frequently fracture, the tenons near said rings, which thus become an element of weakness rather than of strength. In the modification shown in Figs. 3 and 4 the spokes are more deeply seated in the wooden core, and they are also provided with tapering tenons.

We claim as new—

The composite hub, consisting of the mortised wooden core A B, having the annular excavation D *d d'*, perforated hoop C *c*, and spokes F *f f'* G, the whole being arranged to operate as described.

In testimony of which invention we hereunto set our hands.

JACOB DUMP.
ALBERT MOORE.

Attest:

GEO. H. KNIGHT,
THOMAS SMITH.