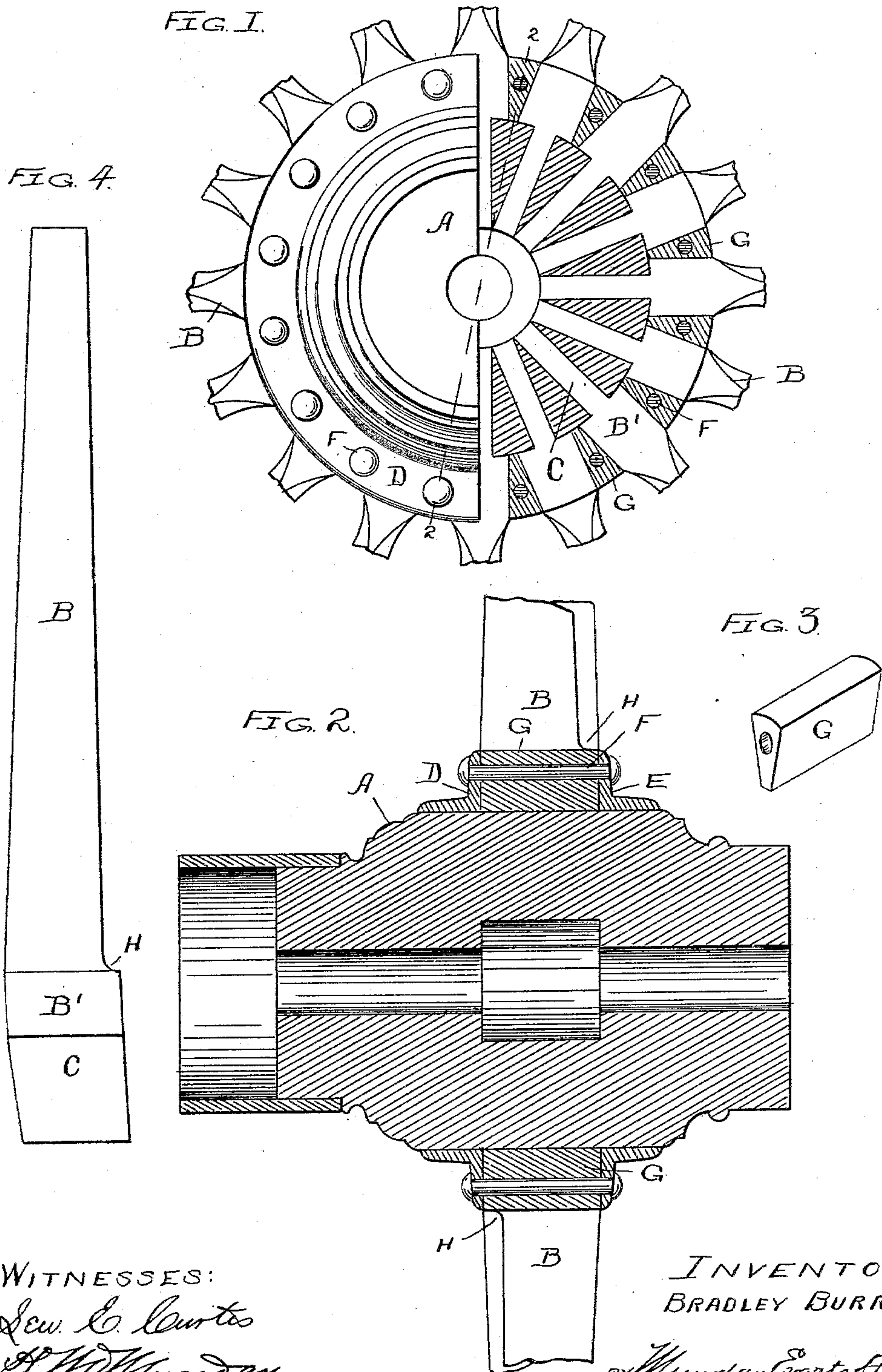


(No Model.)

B. BURR.
VEHICLE WHEEL.

No. 597,707.

Patented Jan. 25, 1898.



WITNESSES:
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UNITED STATES PATENT OFFICE.

BRADLEY BURR, OF CHICAGO, ILLINOIS.

VEHICLE-WHEEL.

SPECIFICATION forming part of Letters Patent No. 597,707, dated January 25, 1898.

Application filed July 26, 1897. Serial No. 645,881. (No model.)

To all whom it may concern:

Be it known that I, BRADLEY BURR, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Vehicle-Wheels, of which the following is a specification.

My object in this invention is to adapt the metal side bands now used in certain kinds of wheels as a means of supporting and stiffening the inner ends of the spokes to use with staggered or dodged spokes. To accomplish this object, I cut the spokes themselves so they can be arranged in staggering fashion and yet present uniform surfaces at their bases against which the bands may be secured.

The nature of the invention will be fully understood from the description which I give below and from the accompanying drawings, in which—

Figure 1 is an elevation, partly in section, of my improved hub, showing also the inner ends of the spokes. Fig. 2 is a section thereof on the line 2 2 of Fig. 4. Fig. 3 shows the filling-block. Fig. 4 is a side elevation of one of the spokes.

In the drawings, A represents a wood hub, preferably of the same diameter as the ordinary wood hub. It is mortised for the spoke-tenons in the manner customary with such hubs, all the mortises being in the same plane, and the spokes B are provided with the ordinary tenons C. The bases B' of the spokes are straight and parallel sided, so that V-shaped spaces are formed between them. Around the outside of the hub and abutting at either side against the bases of the spokes are the flanged metal bands D and E. These bands are pressed on in the manner usual in applying such bands to other wheels and serve to prevent the hub from splitting. They are united together by a series of rivets F, located between the spokes. The spaces between the bases of the spokes and inside the periphery of the bands are filled by filling-blocks G, made V shape, so as to conform to the shape of the spaces. These blocks have longitudinal openings to permit the rivets F to be passed through them and are held in position by the rivets.

The staggering of the spokes is accom-

plished by cutting each of them away at one edge above the base part covered by the band. This cut is shown at H. The opposite edge retains its usual angle or inclination toward the center plane of the spoke, and the tenon is cut so as to incline relative to the body of the spoke, as seen at Fig. 4. When arranged in the wheel with the cut-away sides H of alternate spokes at opposite sides of the wheel, the alternate spokes brace the rim in opposite directions precisely as in the ordinary staggered-spoke wheel, and this result is accomplished without staggering the mortises. The wheel is lightened both in weight and appearance by this feature. The tenons and bases, however, remain the full width of the space between the bands, and consequently the spokes are very strong where the greatest leverage is exerted upon them and they remain strong at the points where the breakages are most frequent in the old construction.

I claim—

1. In a wheel, the combination with a hub having a series of mortises extending around the hub in the same plane, with a series of staggering spokes having a series of non-staggering tenons fitting in said mortises of the hub, each spoke having a base portion or shoulder B' outside the hub the full width of the tenon to form a bearing for the metal bands, and a pair of metal bands surrounding the hub and embracing the spoke-bases, substantially as specified.

2. In a wheel, the combination with a hub having a series of mortises extending around the hub in the same plane, with a series of staggering spokes having a series of non-staggering tenons fitting in said mortises of the hub, each spoke having a base portion or shoulder B' outside the hub the full width of the tenon to form a bearing for the metal bands, a pair of metal bands surrounding the hub and embracing the spoke-bases, filling-blocks between the spokes and rivets passing through the blocks and metal bands, substantially as specified.

3. The combination in a wheel of a wood hub having a series of non-staggering mortises, with a series of staggering spokes having non-staggering tenons fitting in said mortises, said spokes having also non-staggering

base portions for metal bands to bear against and a pair of metal bands surrounding the hub and clamped together against the non-staggering bases of the spokes, substantially
5 as specified.

4. The wheel, wherein are combined staggered spokes having bases and tenons of uni-

form width and arranged in the same plane, and side bands abutting against said bases at both sides, substantially as specified.

BRADLEY BURR.

Witnesses:

H. M. MUNDAY,

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