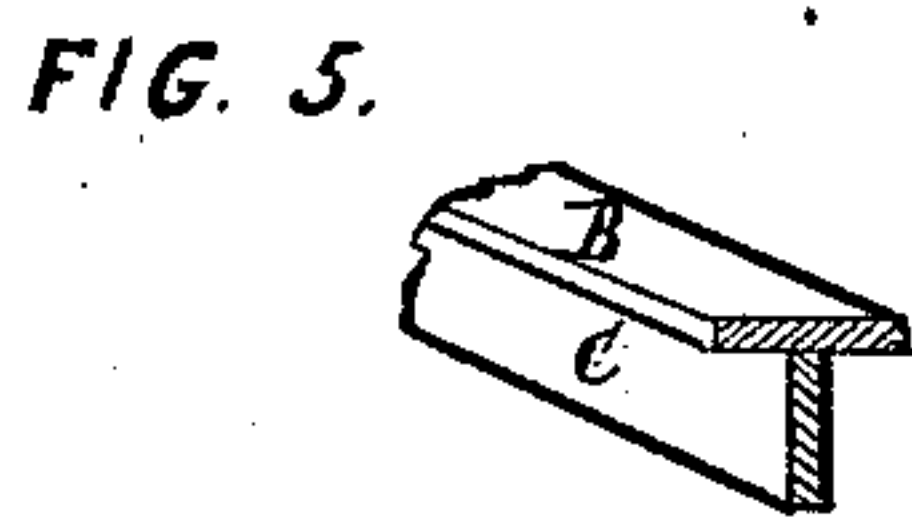
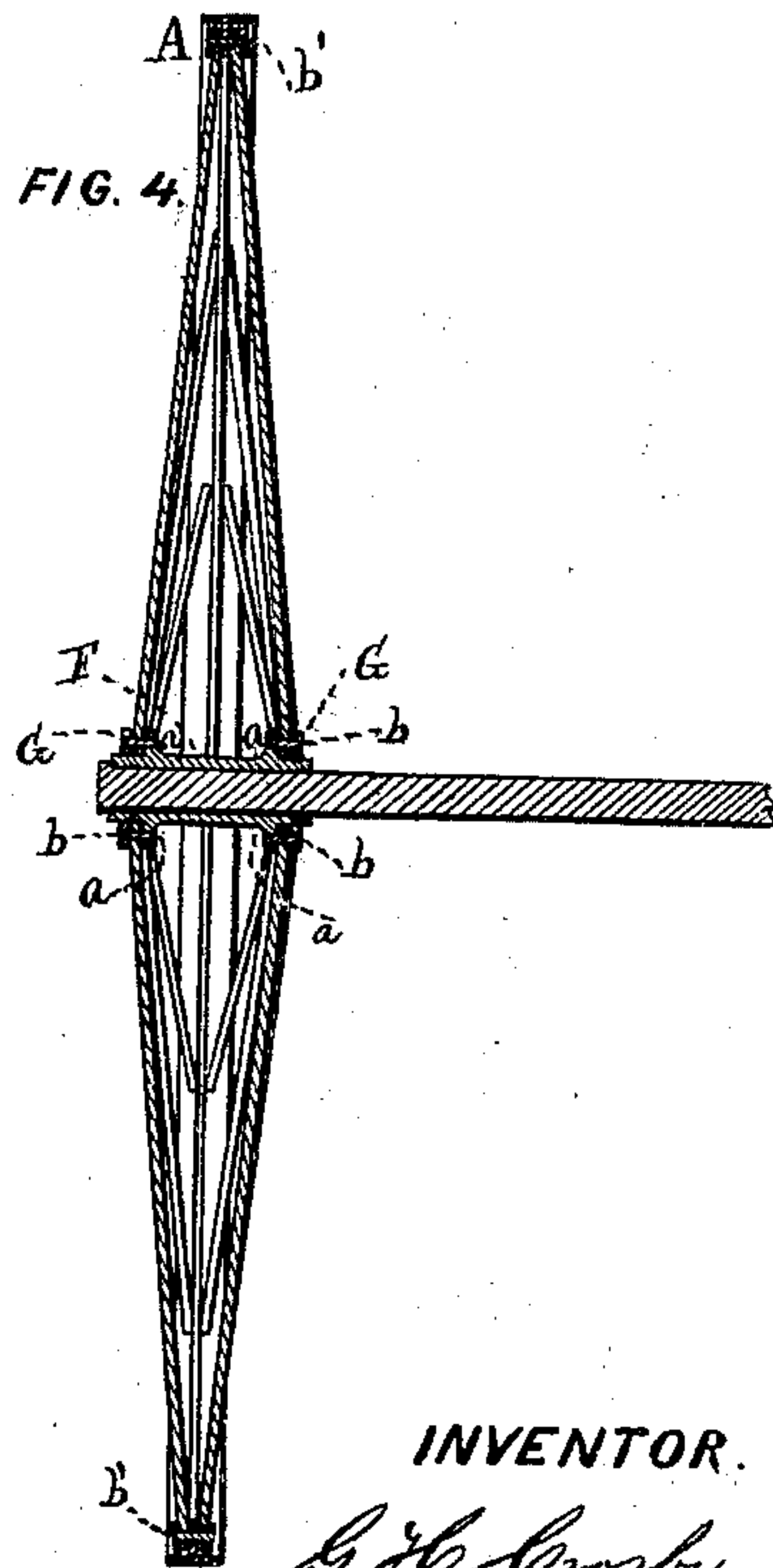
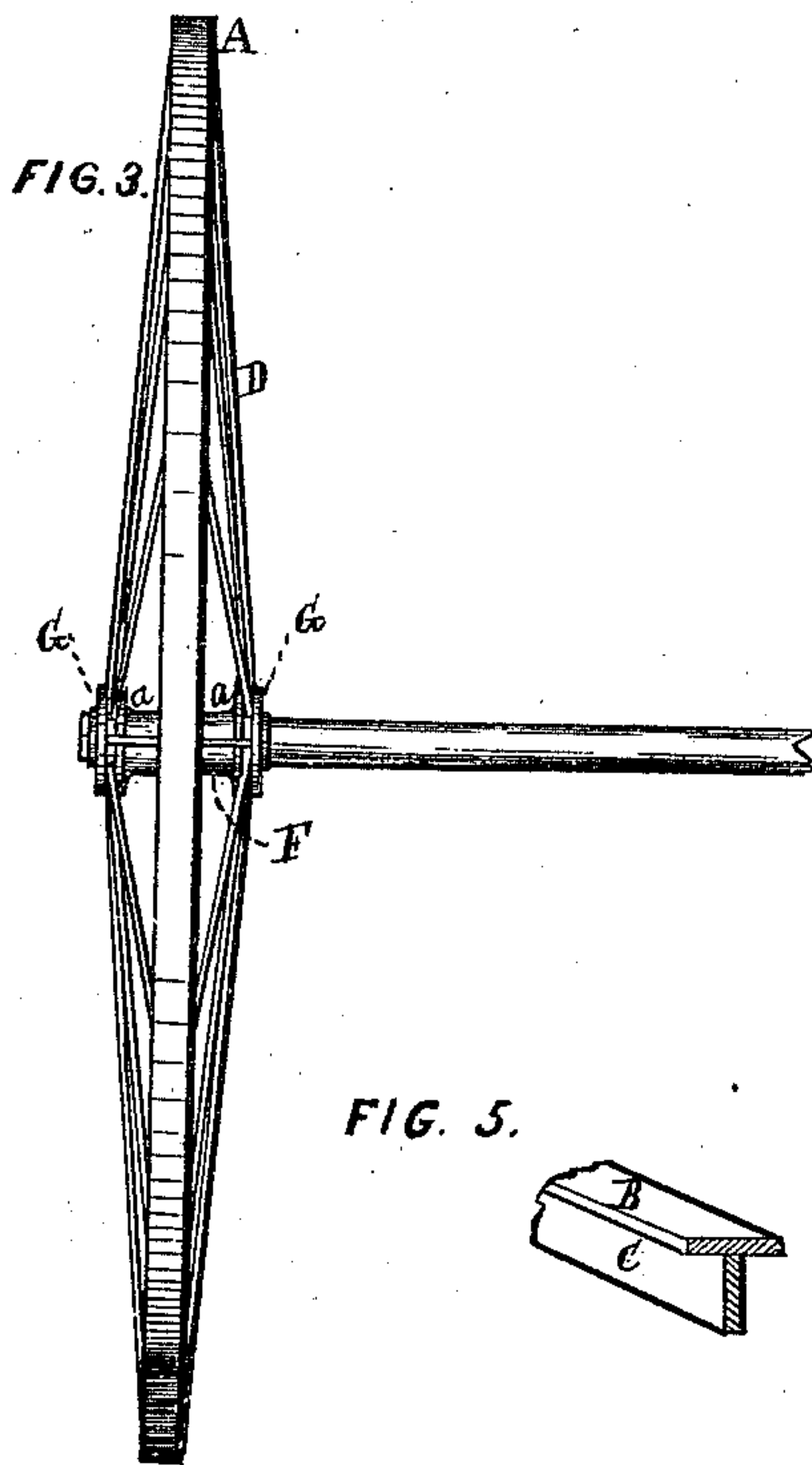
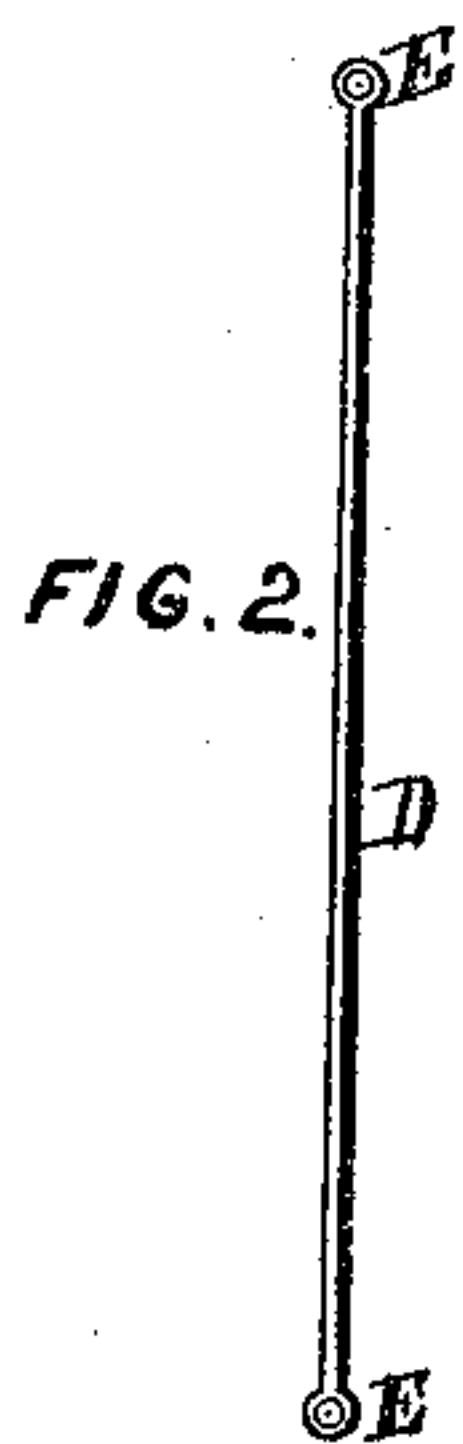
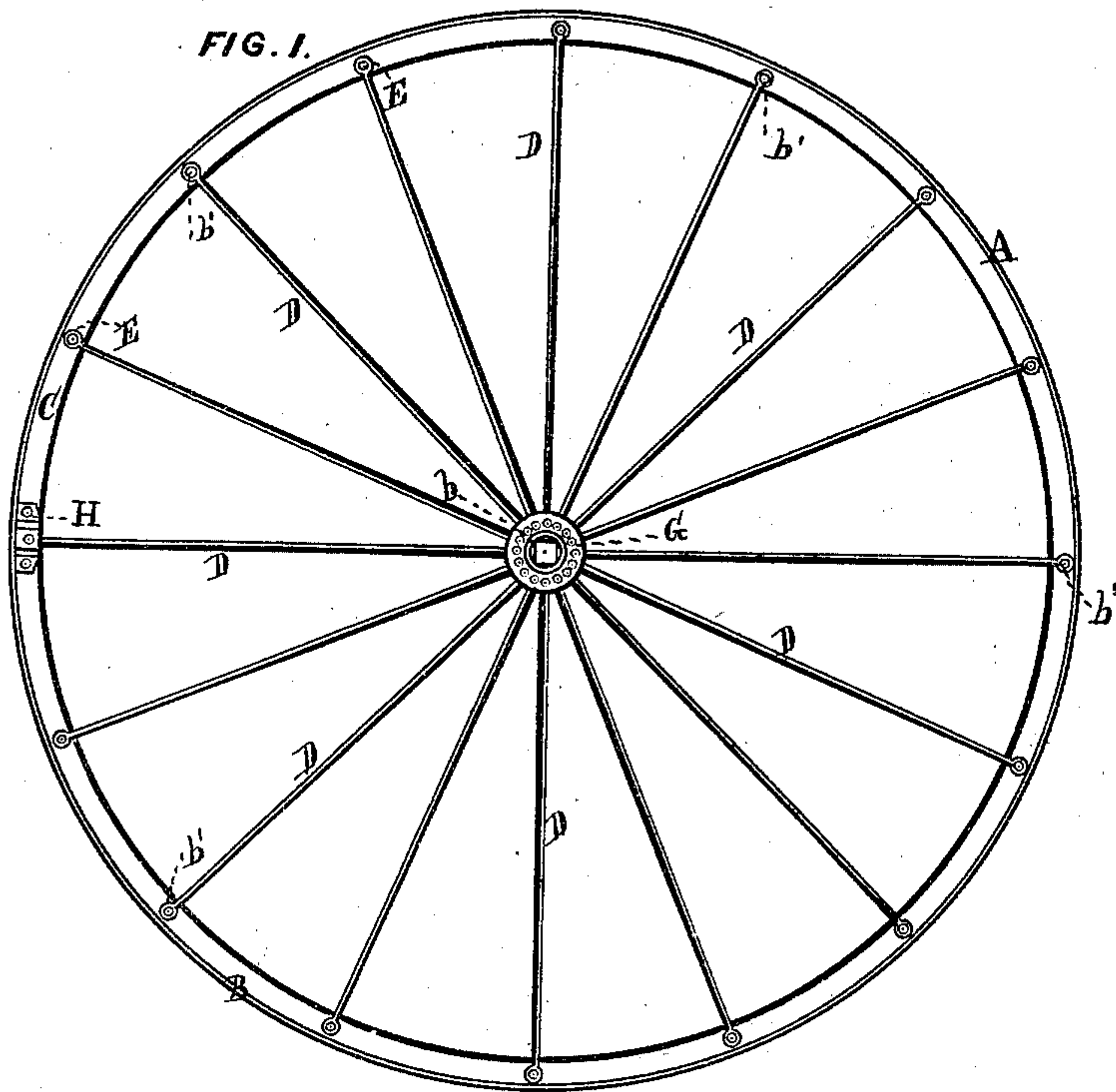


G. H. CROSBY.
CARRIAGE-WHEEL.

No. 170,994.

Patented Dec. 14, 1875.



WITNESSES.

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INVENTOR.

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UNITED STATES PATENT OFFICE.

GILES H. CROSBY, OF ROME, OHIO.

IMPROVEMENT IN CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. **170,994**, dated December 14, 1875; application filed October 26, 1875.

To all whom it may concern:

Be it known that I, GILES H. CROSBY, of Rome, in the county of Ashtabula and State of Ohio, have invented a certain new and Improved Carriage-Wheel; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawings, making part of the same.

Figure 1 is a side view of the wheel. Fig. 2 is a detached section. Fig. 3 is an edge view. Fig. 4 is a transverse section of the wheel. Fig. 5 is a transverse section of the tire.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to a metal carriage-wheel; and the object of the same is to support the hub of the wheel from the rim by the suspensory strength of the spokes above the hub, instead of from the sustaining power of the spokes below the hub.

Said wheel is constructed substantially as follows: The rim A of the wheel referred to consists of a single piece of T-shaped metal, as shown in Fig. 5, of which B is the tread of the wheel or tire, and C the inner annular flange or web. D, the spokes of the wheel, consist of metal rods, having formed on each end an eye, E, whereby they are secured to the felly and hub. F is the hub, near each end of which is a flange, *a*, Fig. 3, forming a part of the hub. Each end of the hub projects beyond the flange, forming a sand-band, whereon is fitted a collar or follower, G.

It will be seen that there are two sets of spokes, the ends of one set of which are secured to one end of the hub, between the flange *a* and the collar G, by means of rivets or bolts *b*, Figs. 1 and 4, passing through the collar and flange, and through the eye on the end of the spoke, as will be seen in Fig. 4. To the opposite end of the hub, in like manner, is secured a second set of spokes. The

opposite ends of both sets of spokes are secured to the felly, respectively, on each side of the web. The ends are secured by one bolt or rivet, *b'*, passing through the eyes of the spokes and the web, as shown in the drawings. In securing the two sets of spokes at each end of the hub, they are, therefore, some distance apart; hence they are, to some extent, bracing in respect to the felly, and which, also, allows a larger number of spokes to be used. The tension of the spokes, in their connection with the hub and felly, is such as to suspend the weight of the hub, axle, &c., from the upper section of the felly, little or no support being effected from the spokes below a point of suspension.

The suspensory power of the spokes above a horizontal line is mainly depended on for the strength of the wheel. For greater security, a strap may be used, in addition to the bolt or rivet, for fastening the spokes to the web of the wheel, as will be seen at H, Fig. 1, one such strap to each side of the web.

The spokes are represented in the drawing as being straight. They may also be made with a slight curve, to obtain a degree of elasticity to them, and which may also be formed of twisted rods, instead of being smoothly plain ones.

What I claim as my invention, and desire to secure by Letters Patent, is—

The herein-described wheel, consisting of the felly A, made of T-iron spokes D, having an eye in each end, whereby they are secured to the hub and felly by means of rivets, hub F, having flanges *a*, collars G, and bolts or rivets *b'*, with or without the straps H'', substantially as described, and for the purpose set forth.

GILES H. CROSBY.

Witnesses:

W. H. BURRIDGE,
A. F. CORNELL.