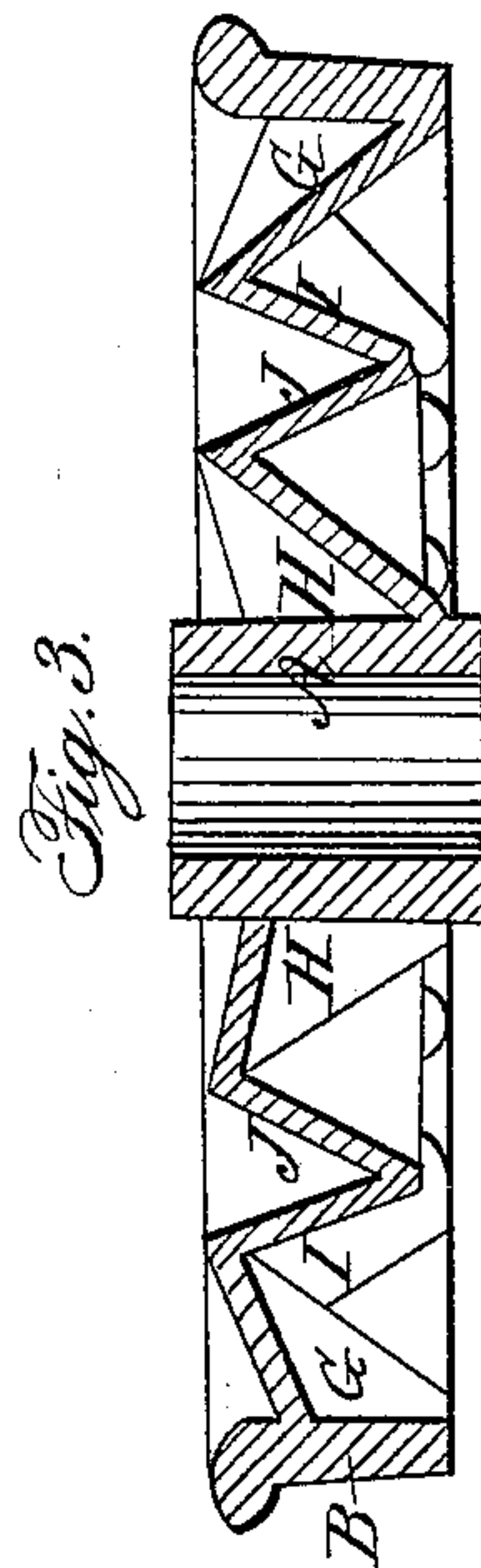
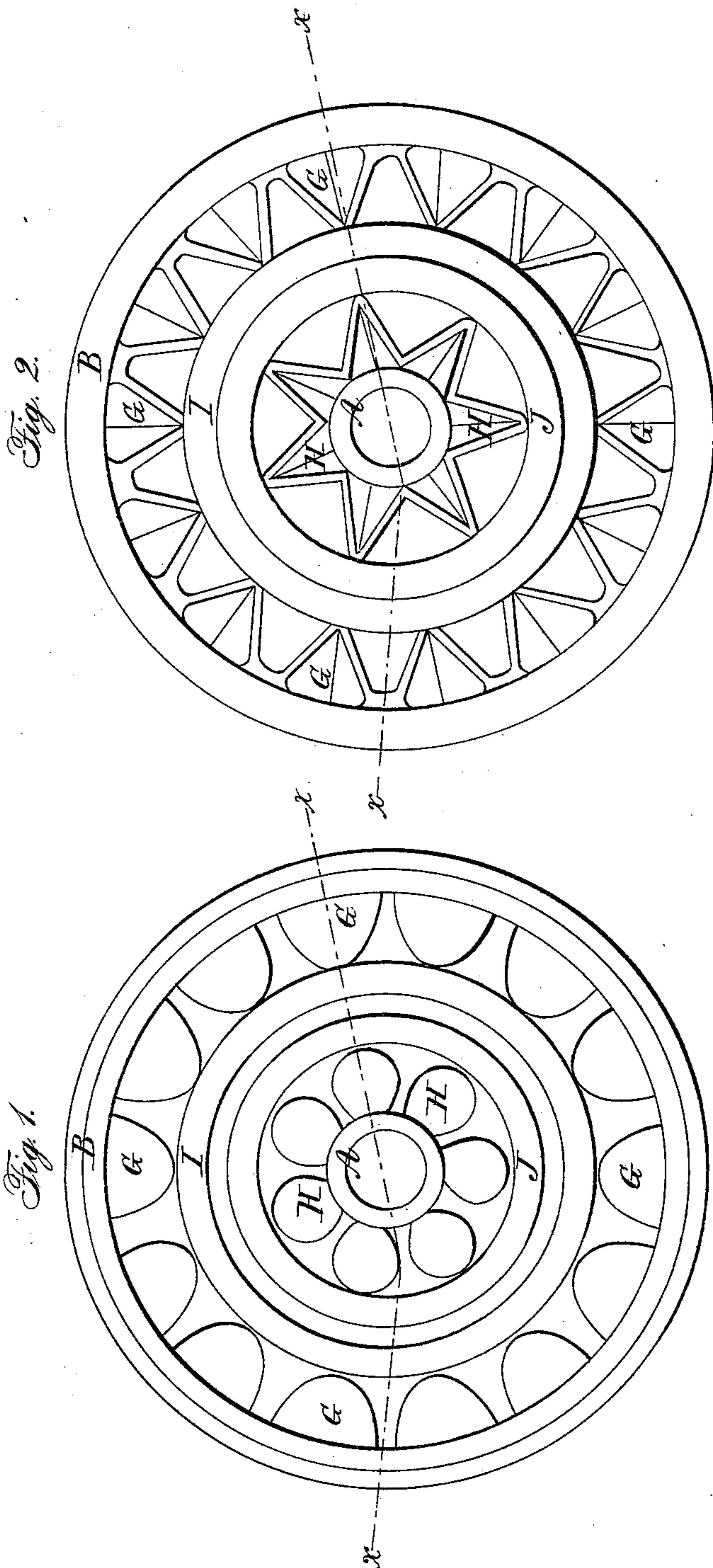


S. THURSTON.

Car Wheel.

No. 8,975.

Patented May 25, 1852.



UNITED STATES PATENT OFFICE.

STEPHEN THURSTON, OF SCRANTON, PENNSYLVANIA.

CAST-IRON CAR-WHEEL.

Specification of Letters Patent No. 8,975, dated May 25, 1852.

To all whom it may concern:

Be it known that I, STEPHEN THURSTON, of Scranton, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Cast-Iron Railroad-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, exhibits the front or outside of the wheel, Fig. 2, exhibits the back or inside of the same, and Fig. 3, a section of the same through the line x, x , shown in Figs. 1, and 2.

Similar letters of reference indicate corresponding parts in each of the several figures.

This invention consists in connecting the hub and rim by a single plate of a peculiar form, which I consider well adapted to stand the shrinkage in cooling, and to withstand the jarring to which all wheels are subject in running, and which presents no difficulties in moulding.

To enable those skilled in the art to make and use my invention I will proceed to describe its construction and operation.

The plate uniting the hub A, and rim B, is of uniform or nearly uniform thickness throughout. At the part where it unites with the rim, the plate has one series of radial corrugations G, G, extending all around, presenting the form, on the outside of segments of cones; these corrugations extend about one third of the distance toward the hub. Within these corrugations the plate takes a bend outward, and presents

the form of a frustum of a cone I, with the base at the back; it then takes a bend inward in the form of another frustum of a cone J, with the base uniting with the summit of I. These two frustums form, as it were, a circular corrugation, or present a circular angular ridge on the outside, and a recess of corresponding form on the inside, extending about one third of the distance between the hub and rim, and together with the corrugated part first named occupying about two thirds of the said distance. The remaining part of the plate surrounding the hub is corrugated radially, similarly to the part within the rim, the corrugations H, H, presenting the same conical appearance.

By the above arrangement of the parts of the plate uniting the hub and rim, the shrinkage in cooling is provided for in all directions, and the danger of cracking obviated; and as much elasticity is obtained as can possibly be possessed by a cast iron wheel. It is easily molded and cast, as no cores are required.

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

Connecting the hub A, and rim B, of a solid cast iron railroad wheel, by a single plate, having two series of radial corrugations G, G, and H, H, united by a hollow band, or single circular corrugation I, J substantially as herein described.

STEPHEN THURSTON.

Witnesses:

S. H. WALES,
EL. POLHAMUS.