

A. WHITNEY.

Car Wheel.

No. 5,127.

Patented May 22, 1847.

Fig. 2.

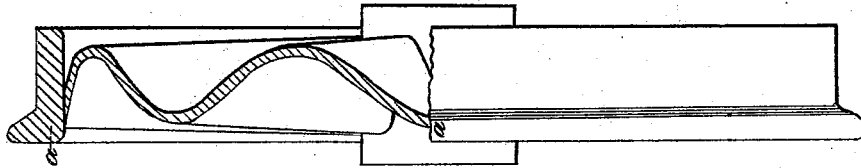
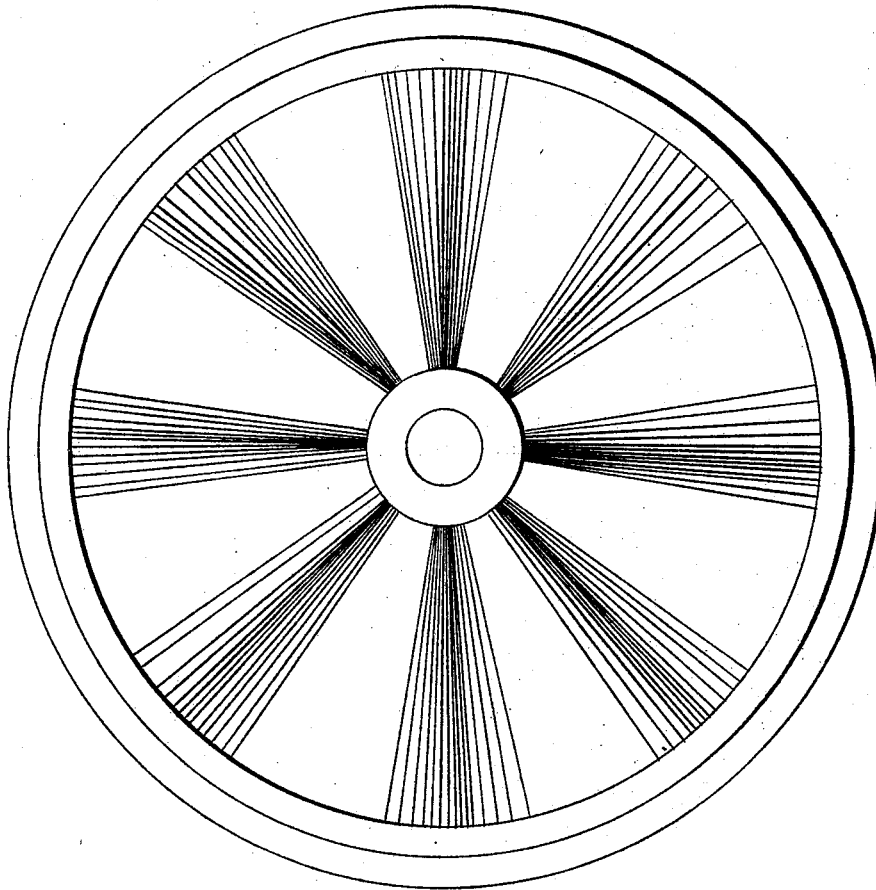


Fig. 1.



UNITED STATES PATENT OFFICE.

ASA WHITNEY, OF PHILADELPHIA, PENNSYLVANIA.

CAST-IRON CAR-WHEEL.

Specification of Letters Patent No. 5,127, dated May 22, 1847.

To all whom it may concern:

Be it known that I, ASA WHITNEY, of the city of Philadelphia, in the State of Pennsylvania, have made a new and useful Improvement in the Manner of Constructing the Wheels of Railroad Cars or Carriages; and I do hereby declare that the following is a full and exact description thereof.

The design of my improvement is to give a greater degree of strength, with a less amount of material, than has heretofore been given to the wheels used on railroads, which is accomplished by making the disk, or that part of the wheel between the rim and hub or nave, corrugated in radii from the center, so that a vertical section around the center, at any point between the rim and hub, will show a waving or wrinkled line, which may be either in continuous curves or in straight lines and angles, while a vertical section across the wheel through its center would present a straight line on the disk.

Figure 1 in the annexed drawings, shows a side view of a wheel shaded to represent the corrugations. Fig. 2 is an edge view of the wheel with part of the rim off, to show the shape of the disk, where it connects with the rim, as by the various lines, *a*, to *a*, in perspective. This drawing only shows a wheel having a single disk. They may also be made with double disks. These wheels may be made wholly, or in part either of wrought or cast iron, or other metal, or by a combination of them. When the wheel is made wholly of cast iron, the hub, disk and rim may be all cast together at the same heat; or the disk may be cast separately, and when thus cast placed in the mold, and the rim and hub subsequently cast on the disk; or the disk and rim, or the disk

and hub, may be cast together at one heat, and those parts laid in the mold, and the remaining part, hub or rim, cast on to them at a subsequent heat. When the wheels are made in parts, of any material the attachment between the hub rim and disk may be made in any of the known ways of constructing rail road wheels. The advantages expected to result from the use of these wheels, corrugated as above described are that they can be made much lighter, with a greater degree of strength, than any spoke or disk wheels heretofore used, inasmuch as this manner of corrugating the disk is in fact a continuous spoke around the whole wheel, while at the same time the waves of the corrugations serve to stiffen the wheel in the direction of the lateral strain when in use, and also to support the rim at every point in its circumference.

I do not claim that the invention above described is an improvement in the form or construction of any other part of rail road wheels than that contained between the hub and rim; nor do I claim to be the inventor of any new and improved mode of fastening or attaching the hub and rim to the disk, but

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

The manner herein set forth, of corrugating the disks of rail road wheels, by which they can be made stronger and more durable with a less amount of material than any other form of disk or spoke wheels, as heretofore made.

A. WHITNEY.

Witnesses:

GEO. WHITNEY,
LEML. WILLIAMS.