

(No Model.)

J. L. FOLLETT.
COMPOSITE METAL WHEEL.

No. 475,305.

Patented May 24, 1892.

Fig. 1.

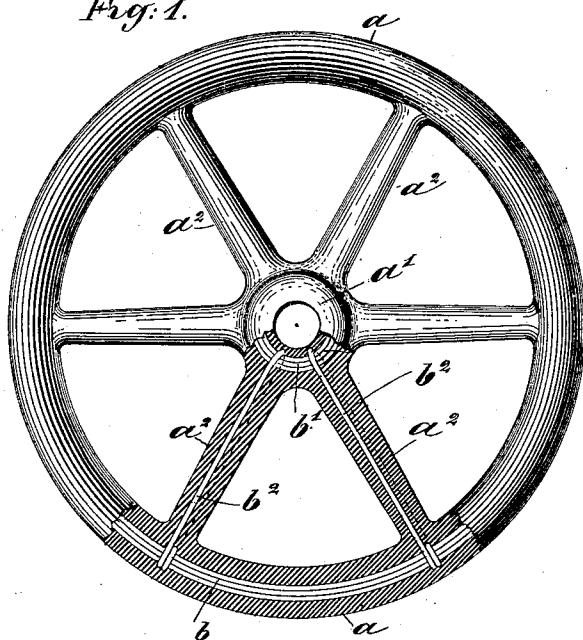
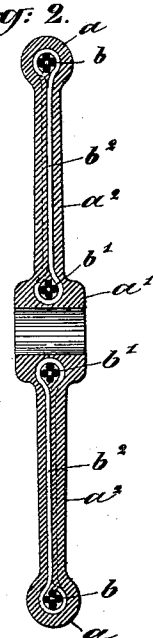


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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COMPOSITE METAL WHEEL.

SPECIFICATION forming part of Letters Patent No. 475,305, dated May 24, 1892.

Application filed July 13, 1891. Serial No. 399,289. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. FOLLETT, a citizen of the United States, residing in the city, county, and State of New York, have invented certain Improvements in Composite Metal Wheels, of which the following is a specification.

My invention belongs to the class of composite metal wheels wherein a skeleton of wrought metal, as wrought-iron or steel, consisting of a rim-ring, a hub-ring, and radial ties, is embedded in cast metal forming the rim, the hub, and the spokes or web of the wheel; and my improvement consists in forming the rim and hub rings of the skeleton of coils of wire, each of several strands, and the ties of wire united at their ends to the respective coils.

In the accompanying drawings I have shown a wheel embodying my invention.

Figure 1 is a face view of the wheel, partly in section, to show the embedded skeleton; and Fig. 2 is a transverse mid-section of the said wheel.

a represents the cast metal of the rim of the wheel, a' the cast metal of the hub or boss, and a^2 the cast metal of the spokes.

Embedded in the rim a is a ring b , formed of several strands of steel or wrought-iron wire, and in the hub a' is embedded a like ring b' . These rings will be formed, preferably, by winding or coiling the wire about a form until the proper number of strands are laid to form a ring-coil of the proper thickness. These rings b and b' are connected by radial ties b^2 , each of which is formed of steel

or iron wire, and is embedded in the cast metal of a spoke a^2 . As here shown, the tie b^2 is composed of two strands of a single wire, which are wound about the respective rings b and b' and tie or unite them together.

In a wheel of this character the cast metal furnishes weight and rigidity and the wire skeleton provides strength and toughness. The wire has great tensile strength, and the rings and ties being formed of strands each strand will be in the main separately embedded, thus forming with the cast metal a compact mass.

I prefer to employ tinned or galvanized wire for the skeleton, as the cast metal will adhere the better thereto.

Having thus described my invention, I claim—

As an improved article of manufacture, a cast-metal wheel having a rim a , hub a' , and connecting spokes or web, and having embedded in its mass a skeleton of wrought-iron or steel wire, said skeleton comprising a rim-ring b , composed of a coil of several strands of wire, a hub-ring b' , composed of several strands of wire, and ties b^2 , composed of strands of wire, said ties connecting the said rings b and b' , substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOSEPH L. FOLLETT.

Witnesses:

HENRY CONNETT,
HERBERT BLOSSOM.