

(No Model.)

L. J. CRECELIUS.
METAL WHEEL.

No. 406,705.

Patented July 9, 1889.

Fig. I.

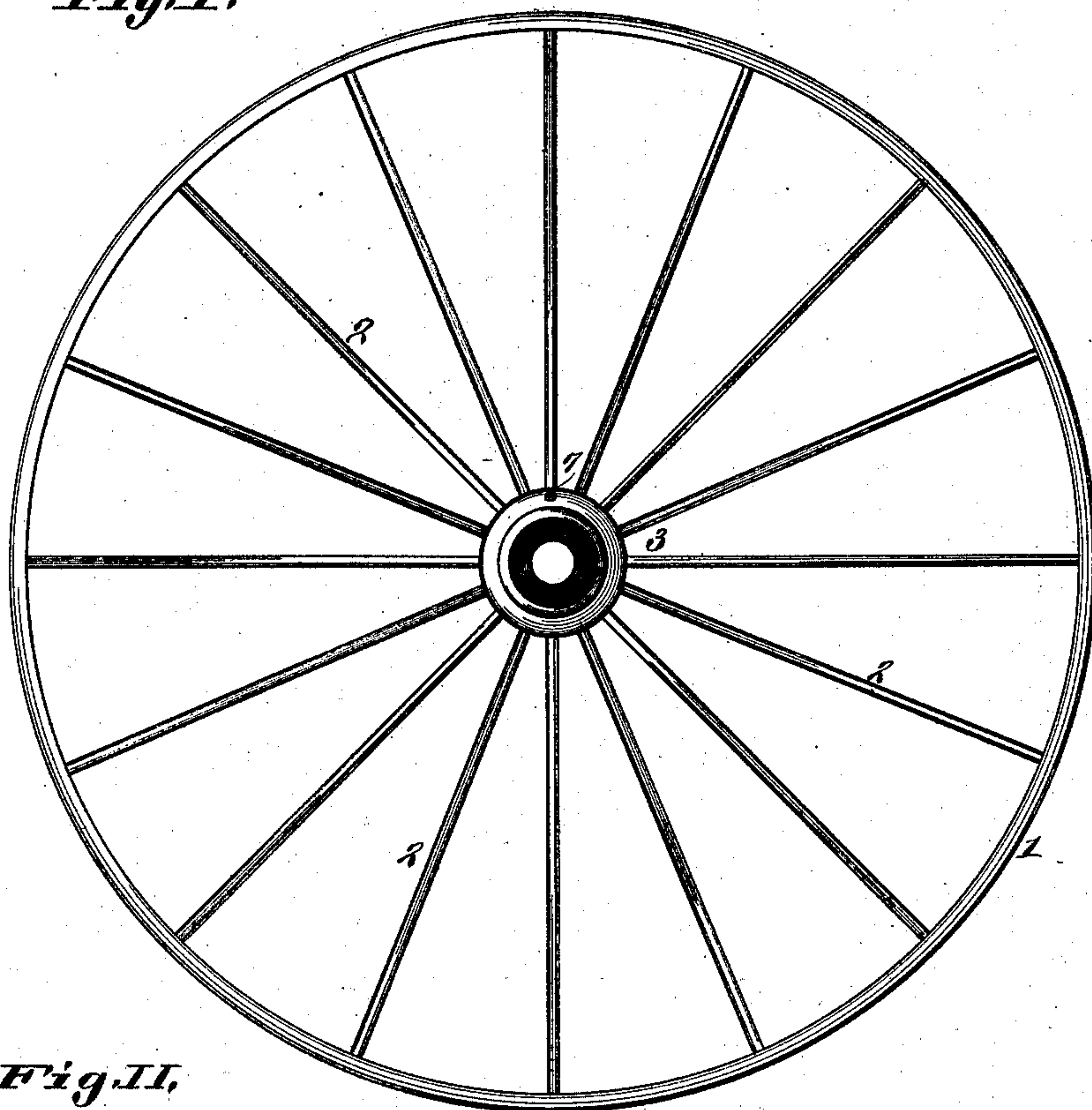


Fig. II.

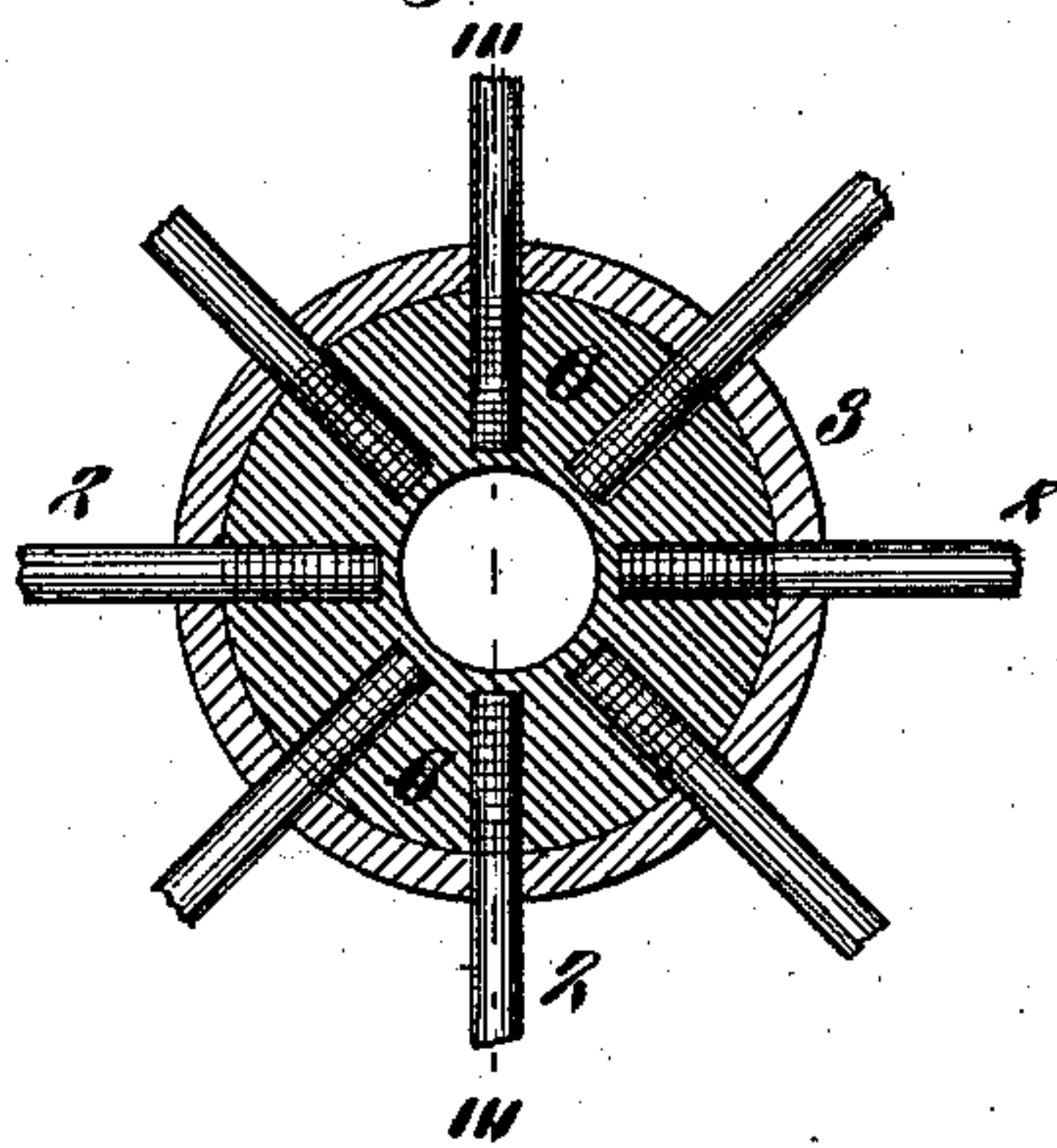


Fig. III.

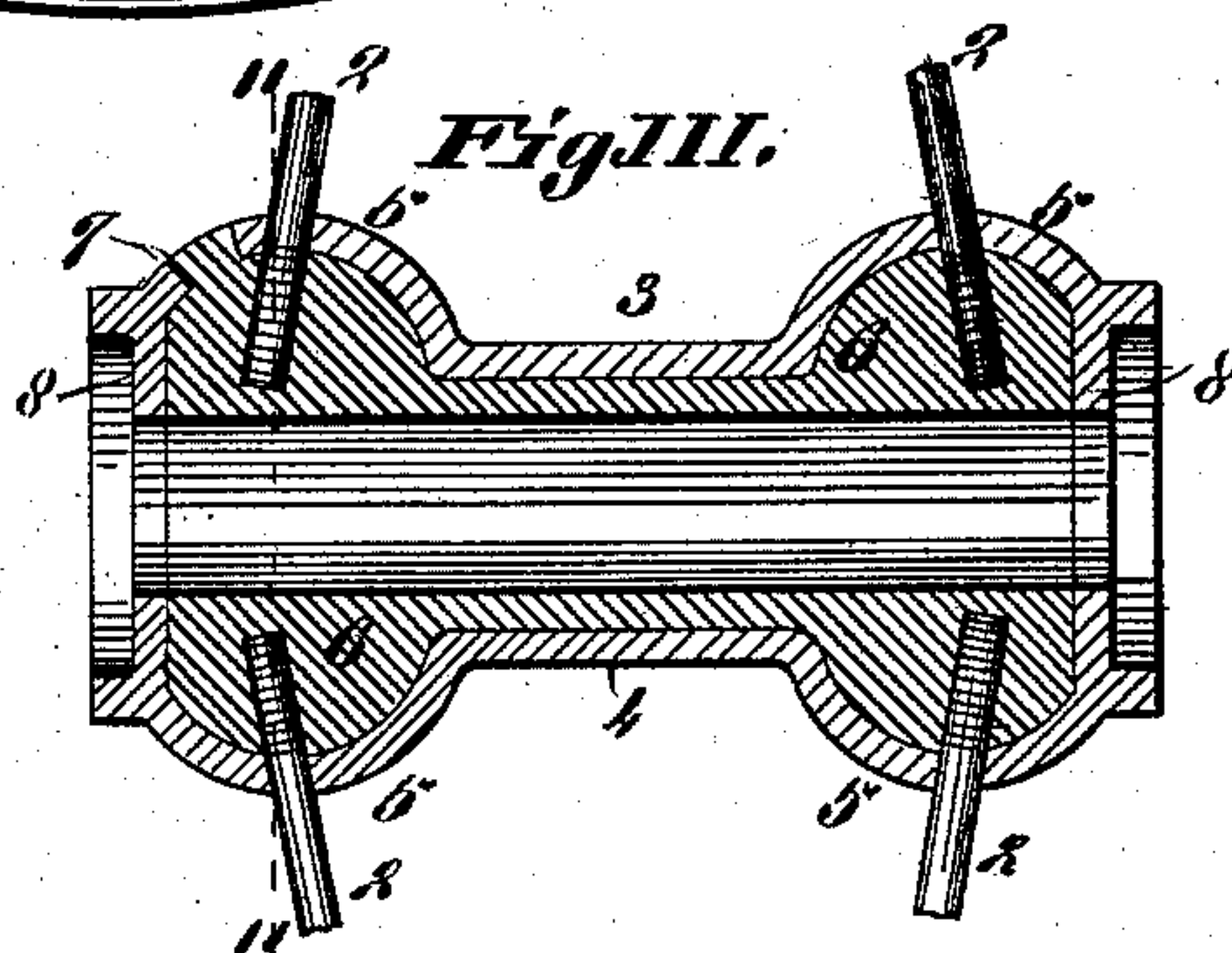
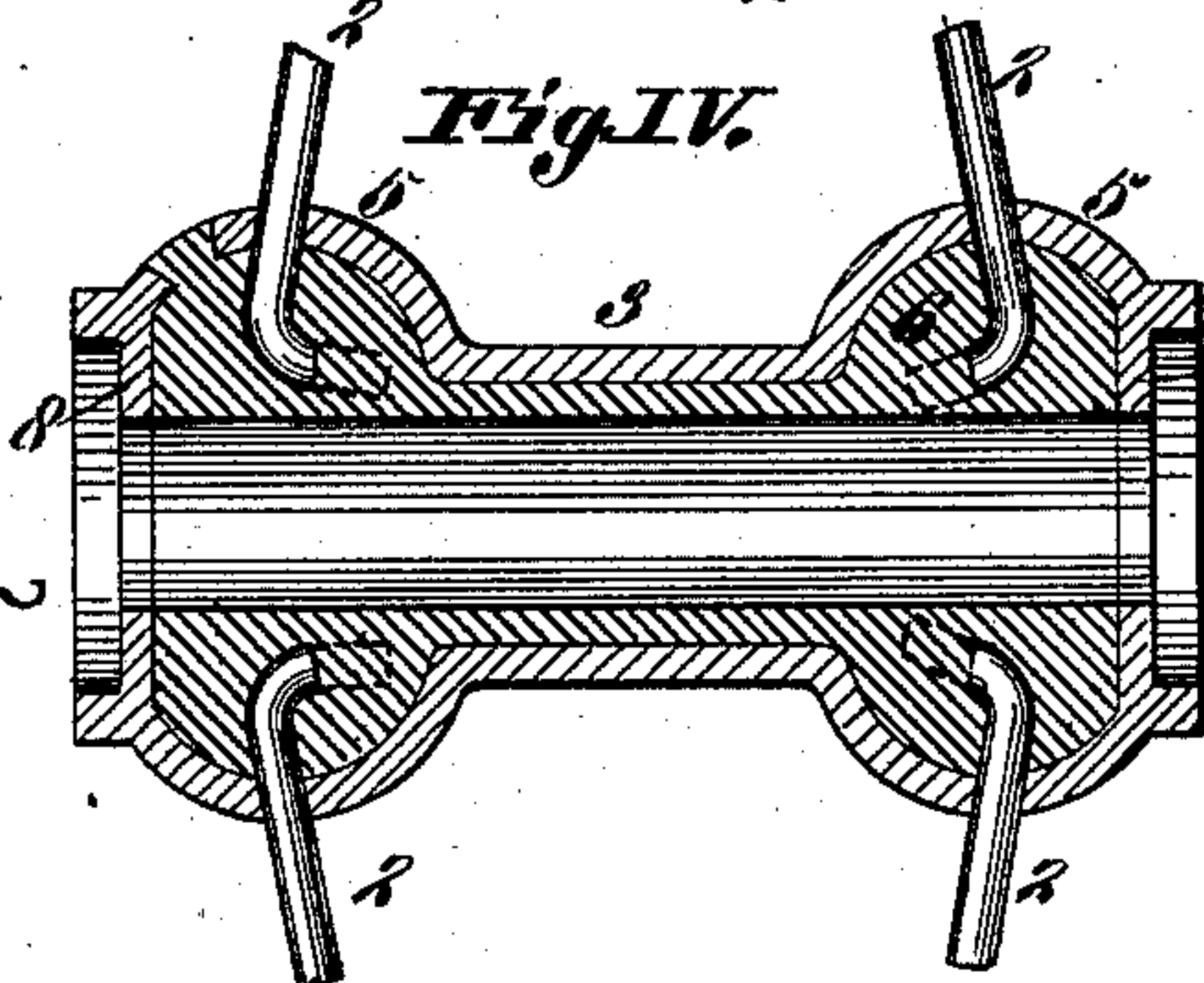


Fig. IV.



Attest:

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UNITED STATES PATENT OFFICE.

LOUIS J. CRECELIUS, OF ST. LOUIS, MISSOURI.

METAL WHEEL.

SPECIFICATION forming part of Letters Patent No. 406,705, dated July 9, 1889.

Application filed December 11, 1888. Serial No. 293,242. (No model.)

To all whom it may concern:

Be it known that I, LOUIS J. CRECELIUS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Metal Wheels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is an elevation of my improved wheel. Fig. II is a transverse section through the hub, showing part of the spokes, the section being taken on line II II, Fig. III. Fig. III is a longitudinal section taken on line III III, Fig. II. Fig. IV is a similar view showing a modified form.

My invention relates to an improved manner of securing the spokes to the hub in a metal wheel; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, 1 represents the rim of the wheel, 2 the spokes, and 3 the hub. The hub is composed of a shell 4, having, preferably, end enlargements 5, which are perforated to receive the inner ends of the spokes 2. Within the shell is a filling 6, of Babbitt metal or other suitable material.

In constructing the wheel the ends of the spokes are inserted into the perforations of the hub and then the filling is poured in in a molten condition, and adhering to the spokes secures them firmly in place. The metal is deposited through a filling opening or orifice 7, or otherwise introduced. Before pouring the metal the shell would be placed on a mandrel or core and may be held centrally thereon by end flanges 8. After the metal is poured

and becomes hardened or solidified the wheel will be removed from the mandrel or core and the filling with the inner faces of the flanges 8 will form the journal-bearing of the wheel.

The inner ends of the spokes may be roughened or serrated, as shown in Figs. II and III, and these ends may be tinned, if desired, before putting them in place, for the purpose of causing a greater adhesion between the spokes and the filling; or, if desired, the inner ends of the spokes may be bent, as shown in Fig. IV, as an extra precaution against their working loose in the filling.

I claim as my invention—

1. A metal wheel having a hub-filling cast therein onto the ends of the spokes, for the purpose described.

2. In a metal wheel, the combination of the spokes and a hub, the latter consisting of a shell, and a filling applied around the ends of the spokes in a molten or liquid condition, substantially as and for the purpose set forth.

3. In a metal wheel, the combination of the spokes and hub, the latter consisting of a shell and a filling in which the ends of the spokes are embedded and having end flanges 8, substantially as and for the purpose set forth.

4. In a metal wheel, the combination of the spokes and hub, the latter having perforated enlarged ends to receive the spokes, and a filling cast into the shell, substantially as and for the purpose set forth.

LOUIS J. CRECELIUS.

In presence of—

GEO. H. KNIGHT,
EDW. S. KNIGHT.