

No. 628,733.

Patented July 11, 1899.

I. N. WISSINGER.
DRIVING WHEEL FOR LOCOMOTIVES.

(Application filed Jan. 19, 1898.)

(No Model.)

Fig. 3.

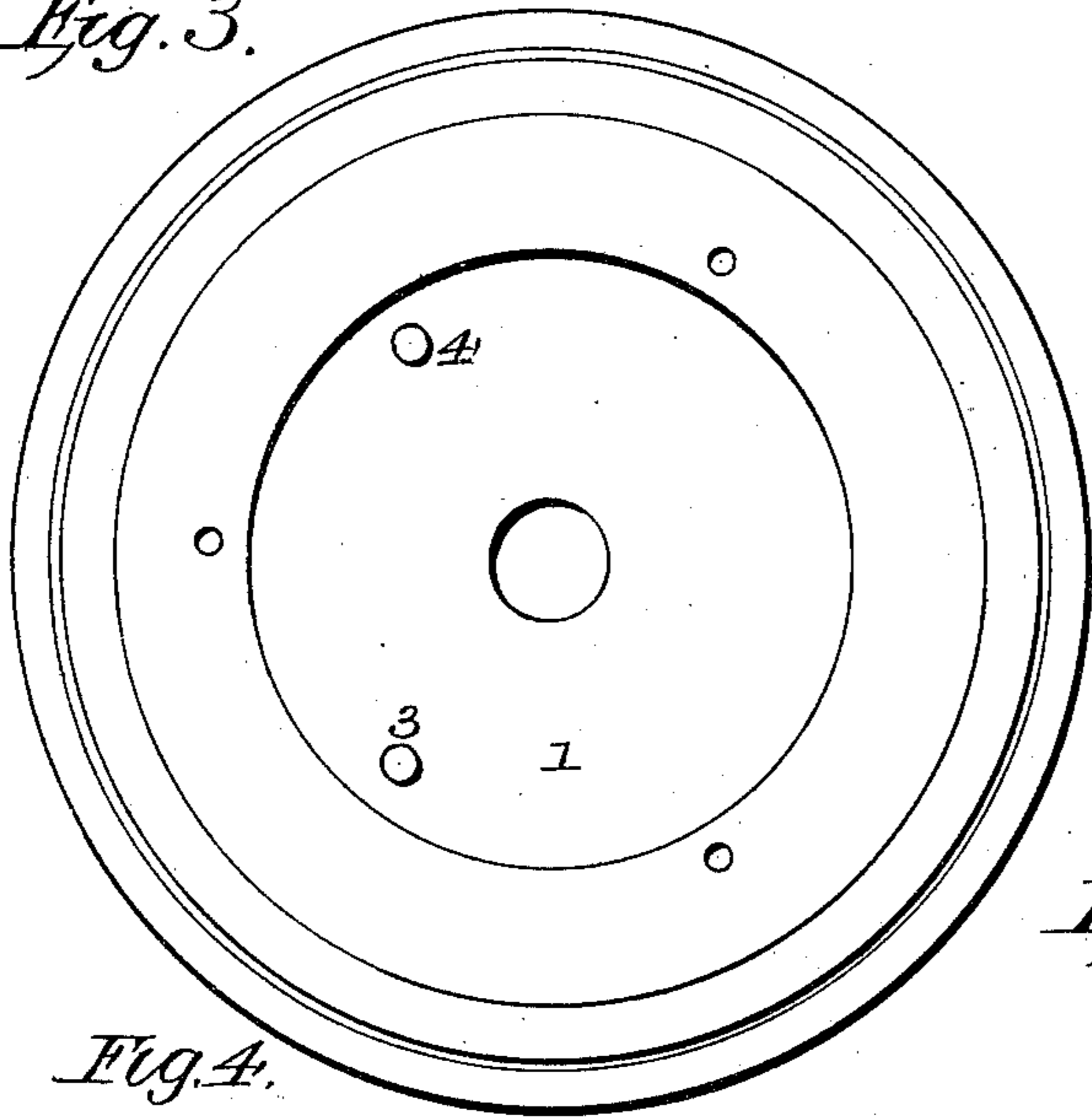


Fig. 5.

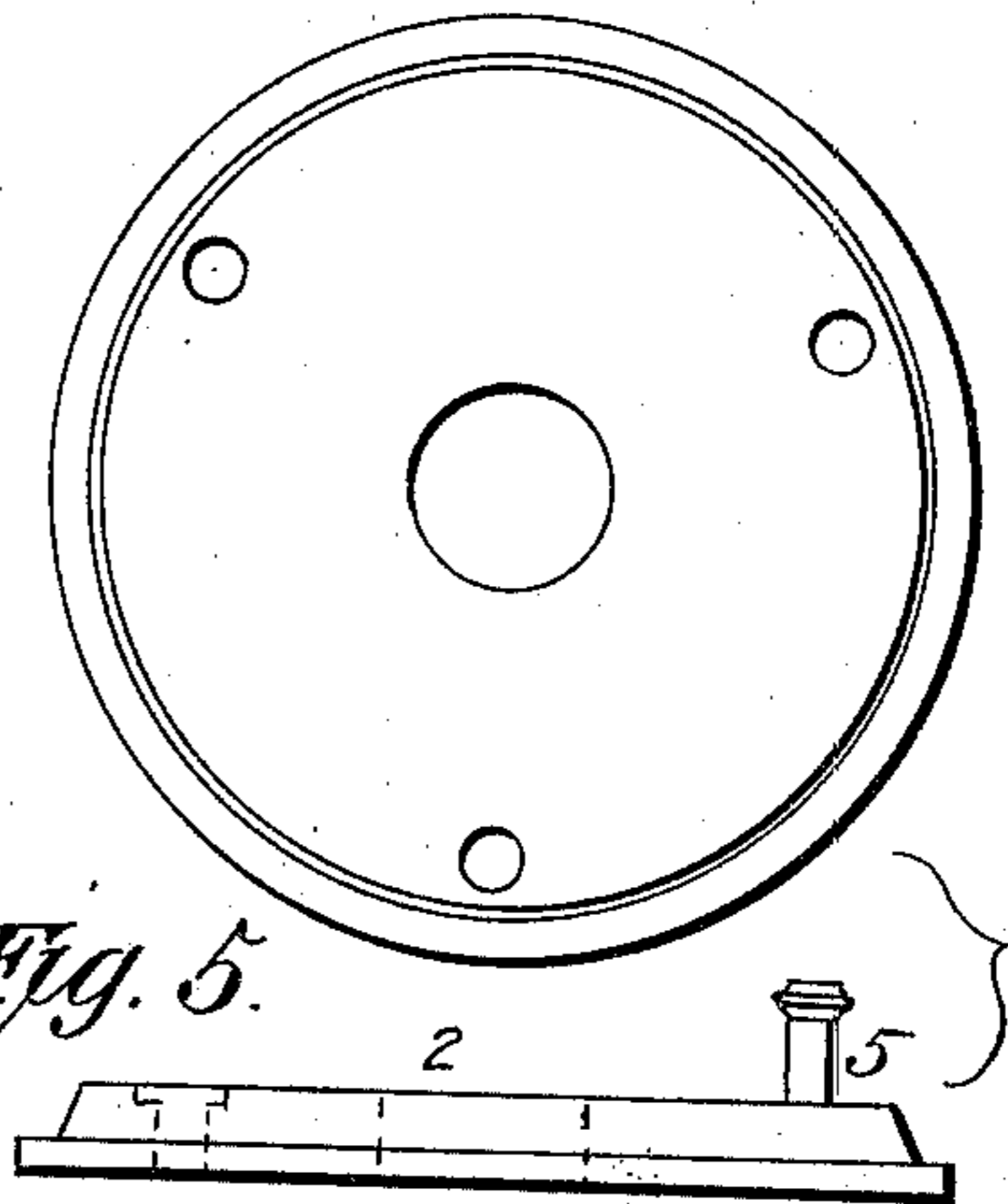


Fig. 4.

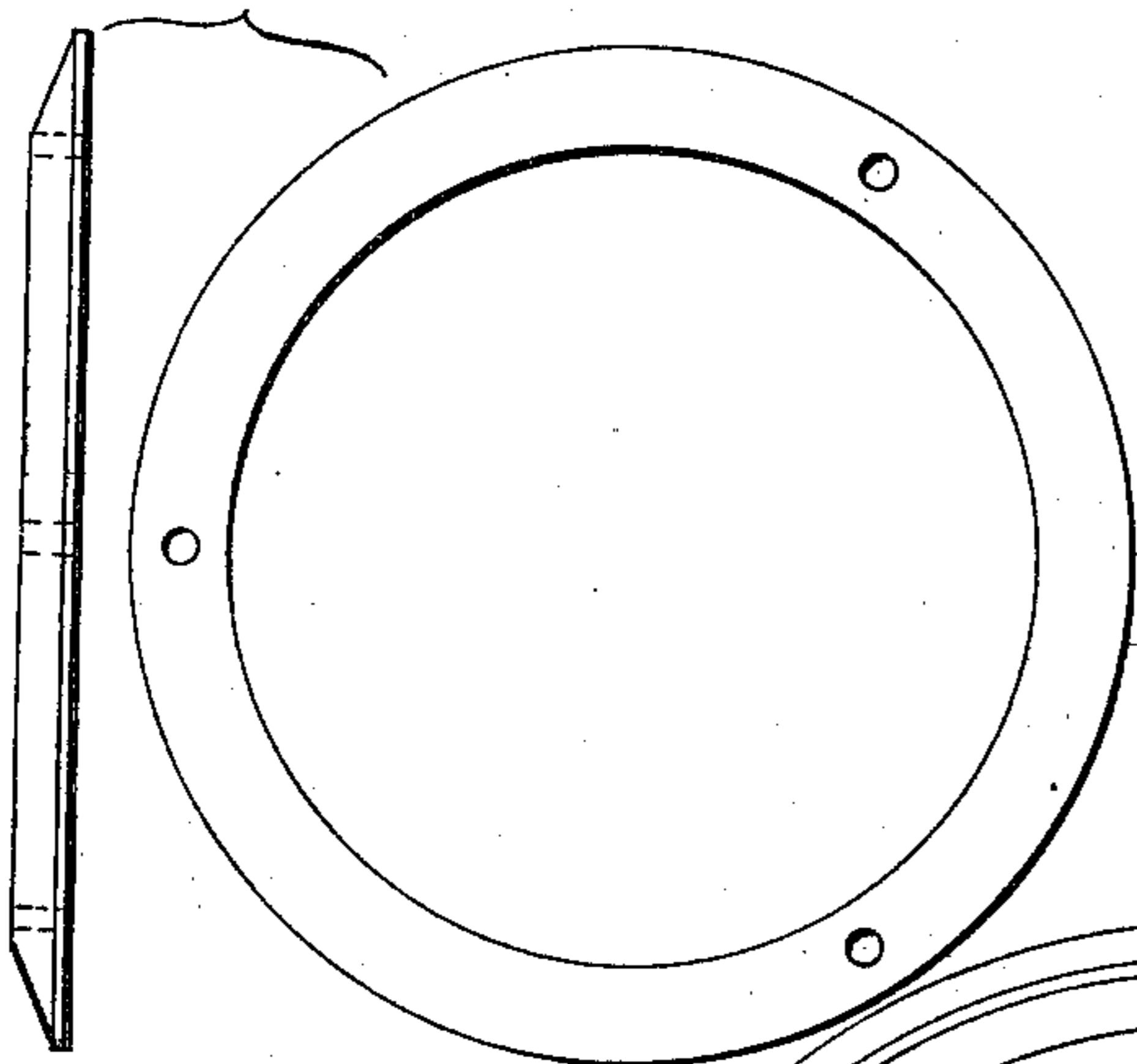


Fig. 2.

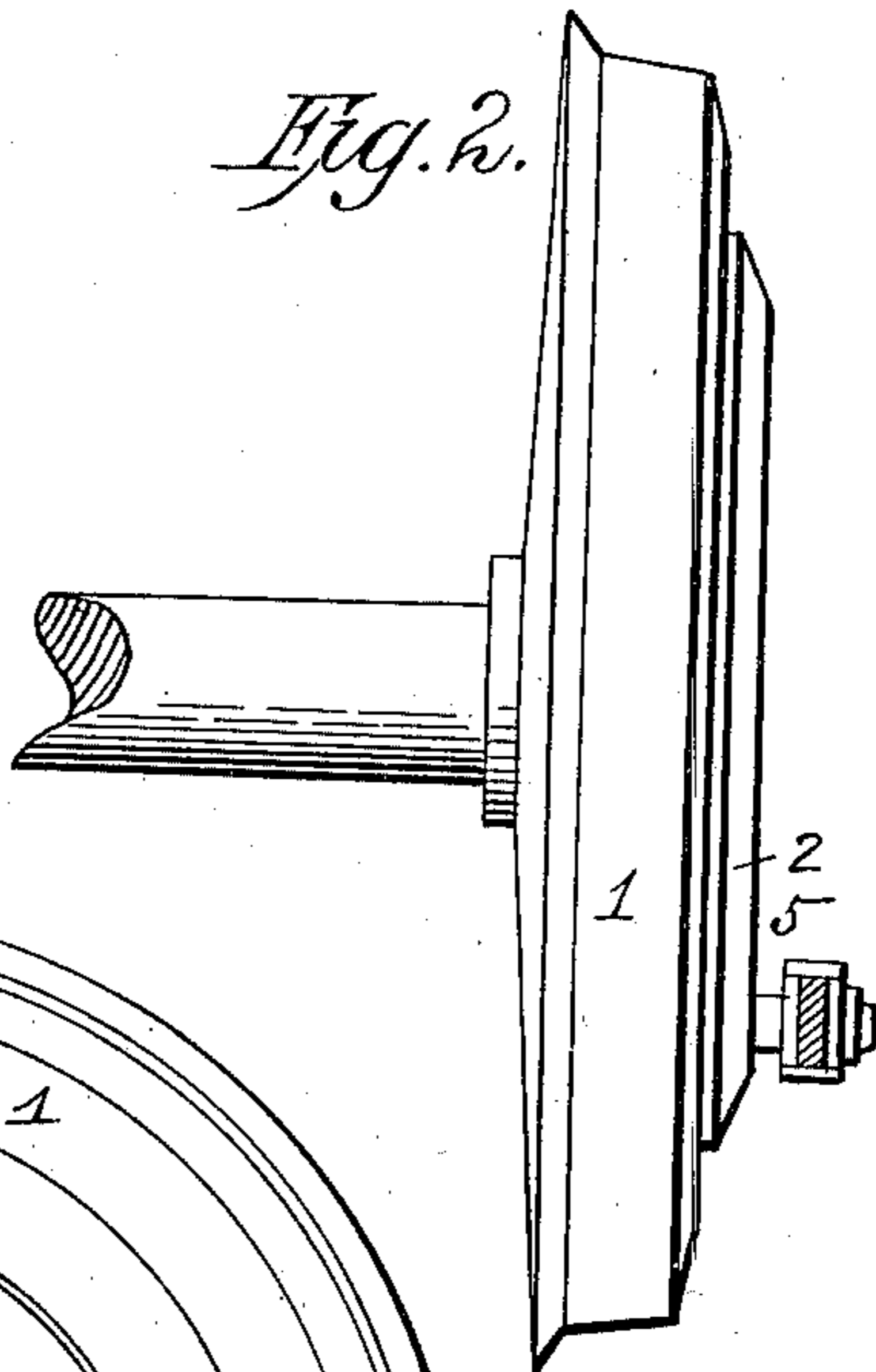
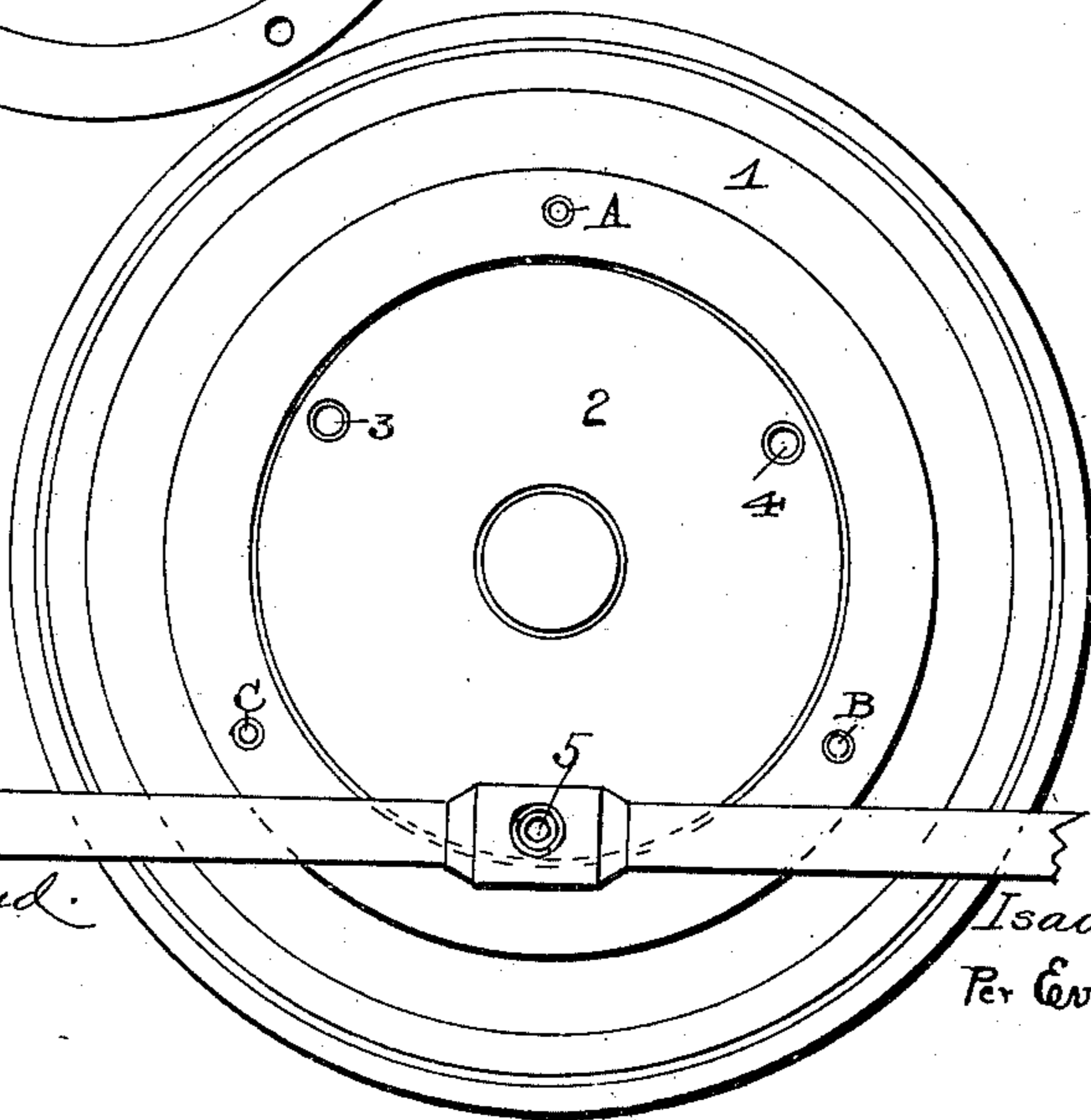


Fig. 1.



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UNITED STATES PATENT OFFICE.

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DRIVING-WHEEL FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 628,733, dated July 11, 1899.

Application filed January 19, 1898. Serial No. 667,179. (No model.)

To all whom it may concern:

Be it known that I, ISAAC N. WISSINGER, of Blacklick, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Driving-Wheels for Locomotives, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the numerals and letters of reference marked thereon.

My invention relates to an improvement in driving-wheels for locomotives, although it is equally applicable to driving-wheels for use in other classes of machinery. Its object is to equalize or distribute the strain transmitted to the wheel at the wrist-pin throughout various parts of its area and to convert the pull or thrust given to the wrist-pin through the medium of the connecting-rod into a thrust or pull upon points of the wheel equidistant with the wrist-pin from the center of the wheel and bearing the same radial relation thereto.

In carrying out my invention I employ a driving-wheel made in concentric sections, one being keyed to the axle or shaft, another being slipped over the axle into a recess formed in the first section and kept from turning by studs or pins projecting from the first section through holes formed in the second section, the latter being maintained in position with respect to the first section and the axle by means of a third section concentrically arranged around and resting upon a shoulder formed in the second one, the third one being bolted or otherwise secured to the first section.

In the accompanying drawings, Figure 1 is a side elevation of the wheel complete. Fig. 2 is an edge view thereof. Fig. 3 is a side view of the main portion of the wheel, hereinafter termed the "first" section, detached. Fig. 4 shows edge and face views of what is herein designated as the "third" section of the wheel. Fig. 5 shows similar views of the second section.

Similar numerals and letters of reference indicate similar parts in the respective figures.

1 is the first or main section of the wheel, keyed to the axle or shaft. The section 1 is

furnished with a recess, from which project, as here shown, two studs or pins 3 4.

2 is the second section, of diameter slightly smaller than the recess of the first section and provided with a shoulder which when the section 2 is in place within the recess is flush with the exterior surface of the section 1. The second section 2 is provided with holes which fit over the studs or pins 3 4. It is also provided with the wrist-pin 5, which occupies such position with reference to the studs or pins 3 4 that an equilateral triangle is formed by the two studs or pins and the wrist-pin.

The third section or member, Fig. 4, which surrounds the second section 2, rests upon its shoulder and is screwed, bolted, or otherwise secured, as at A B C, to the first section 1.

In operation it will be seen that a pull upon the wrist-pin 5, communicated through the side bar or rod from the piston or other connection, is converted into a thrust upon the upper surface of one stud or pin and the under surface of the other stud or pin, while a thrust upon the wrist-pin 5 is converted into a pull upon the said surfaces of the studs or pins. The strain to which the wheel is subjected is therefore distributed throughout the greater part of its area, and the wheel not being homogeneous the strain is not concentrated solely between the point of application of power and the resistance, which when the invention is applied as a locomotive-driver is the track.

It is obvious that such division of the strain upon the wheel is of the highest importance and that the practical and useful life of the wheel is materially lengthened.

Having described my invention, I claim—

1. As an improvement in wheels, a first section of a wheel secured to the axle or shaft and provided with studs or pins, combined with a second section fitting over the said studs or pins and carrying a wrist-pin, substantially as described.

2. As an improvement in wheels, a first section secured to an axle or shaft and having a recess and studs or pins located in the said recess, combined with a second section fitting over the said studs or pins and carrying a wrist-pin, substantially as described.

3. As an improvement in wheels, a first sec-

tion secured to an axle or shaft and provided with studs or pins, combined with a second section fitting over the said studs or pins, a wrist-pin mounted on said second section, 5 and a third section fastened to the first section and confining the second section in place, substantially as described.

4. As an improvement in wheels, a first section secured to an axle or shaft and having 10 an annular recess and studs or pins located

in said recess, combined with a second section fitting over the said studs or pins and carrying a wrist-pin, and a third section fastened to the first section and confining the second section in place, substantially as described. 15

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