

(No Model.)

J. RIGBY.
Car Wheel.

No. 241,069.

Patented May 3, 1881.

Fig. 1.

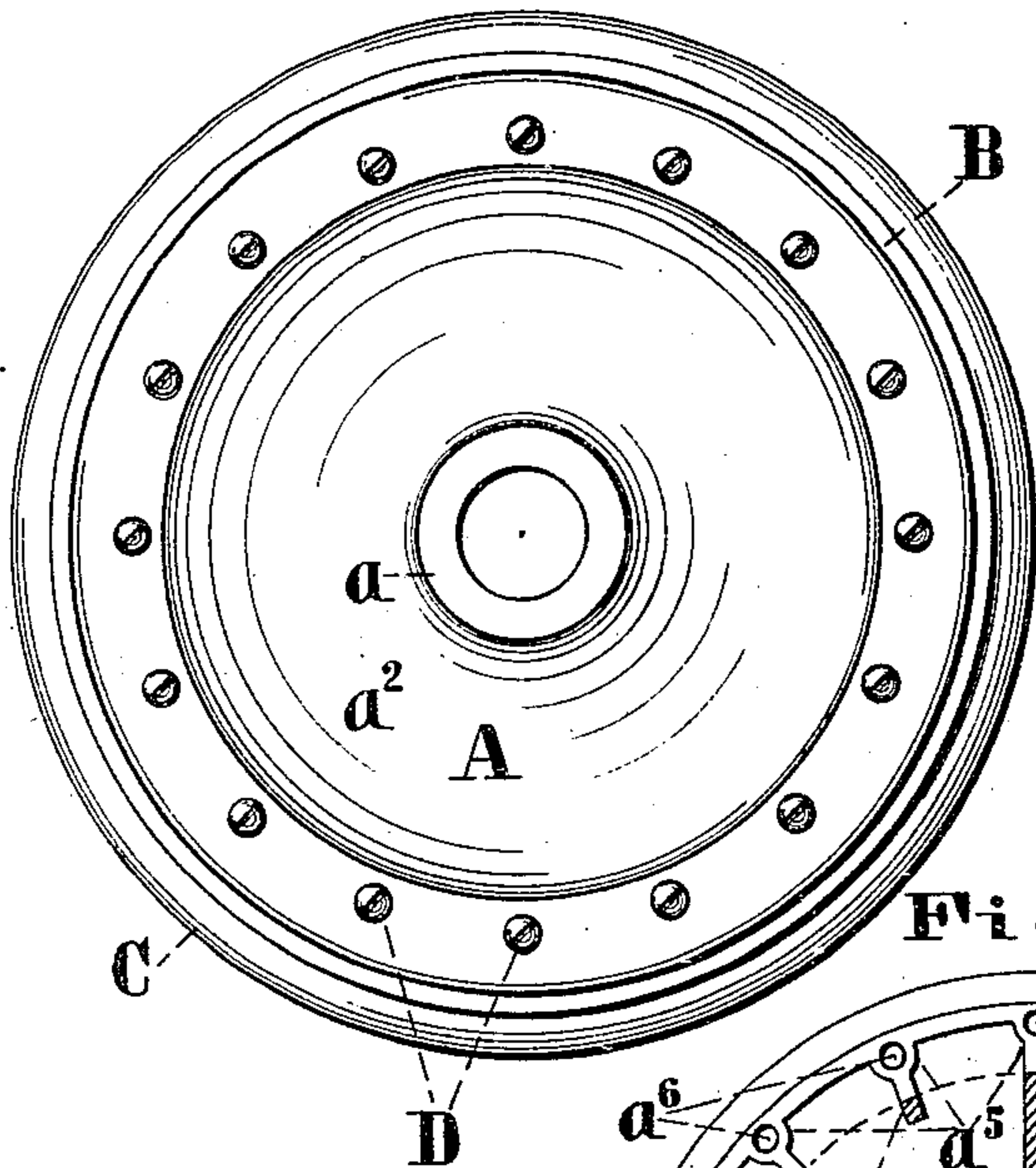


Fig. 2.

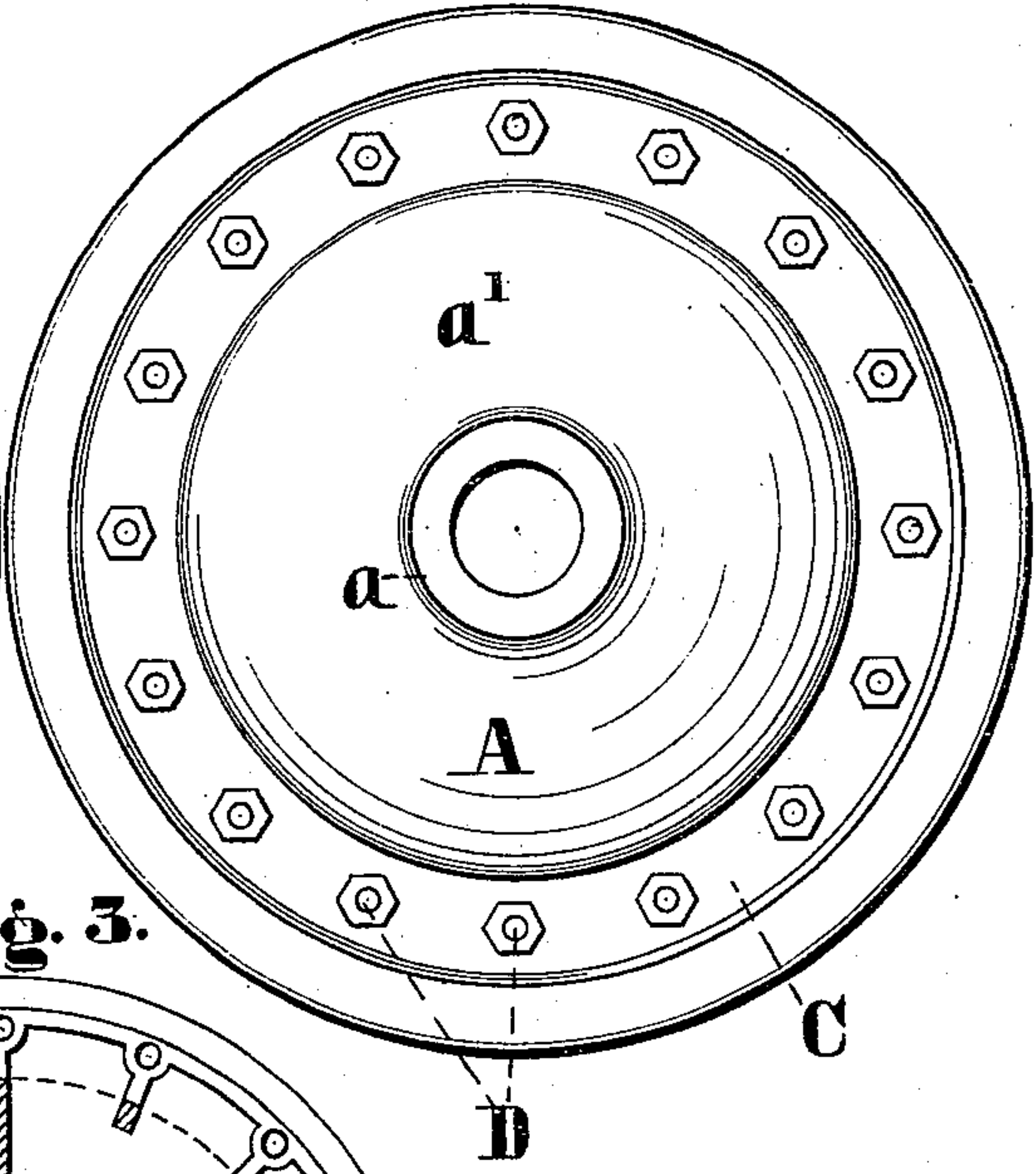
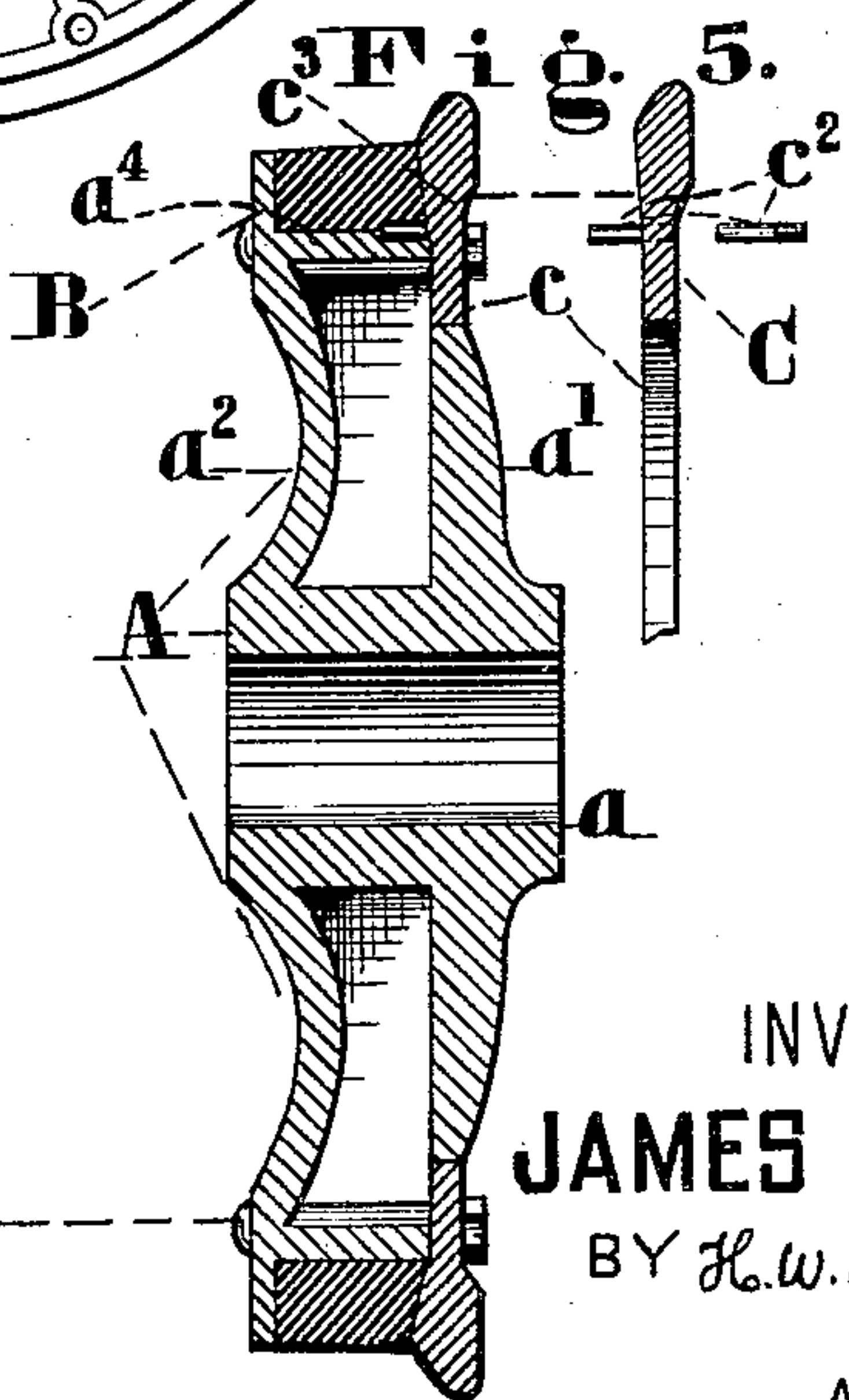
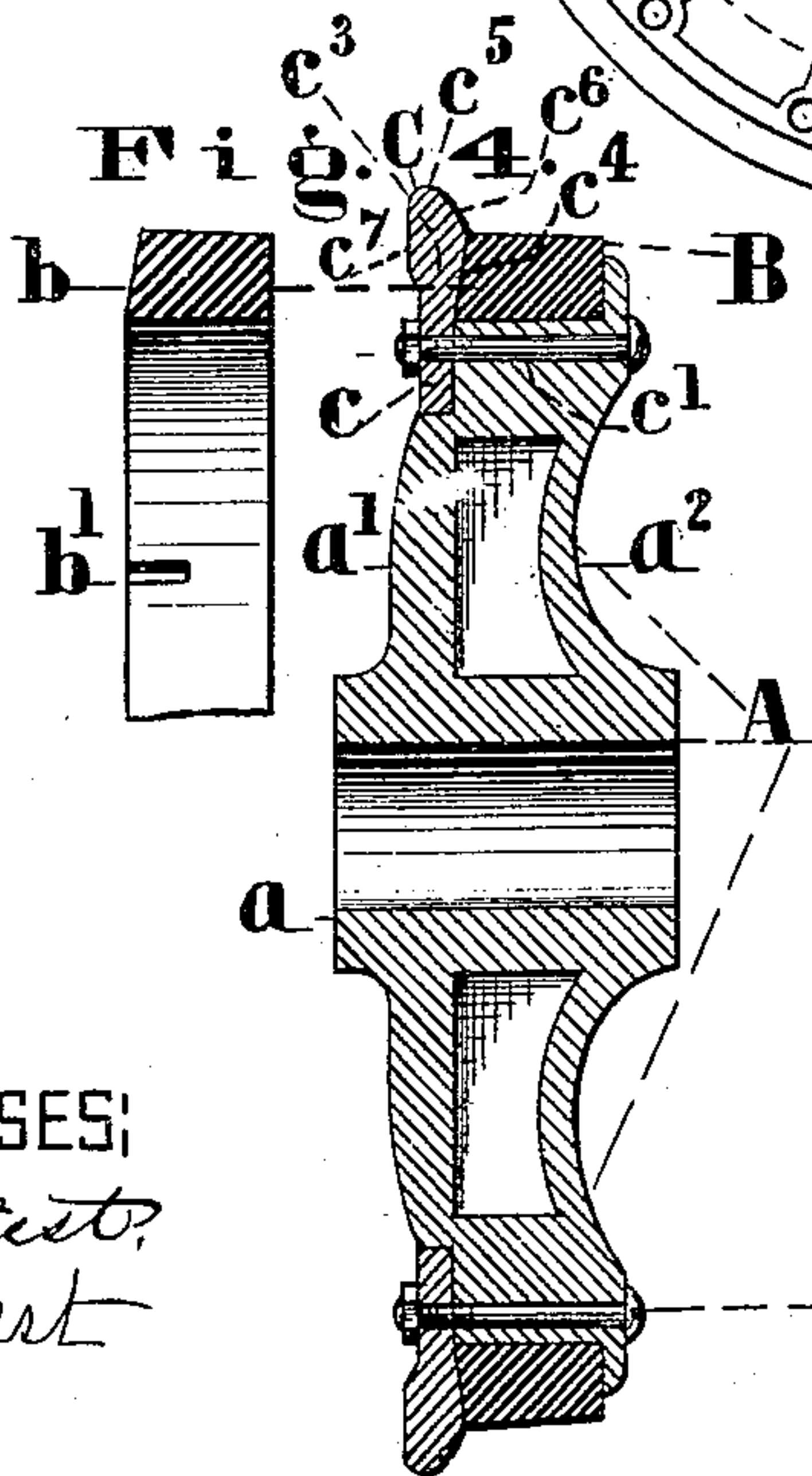
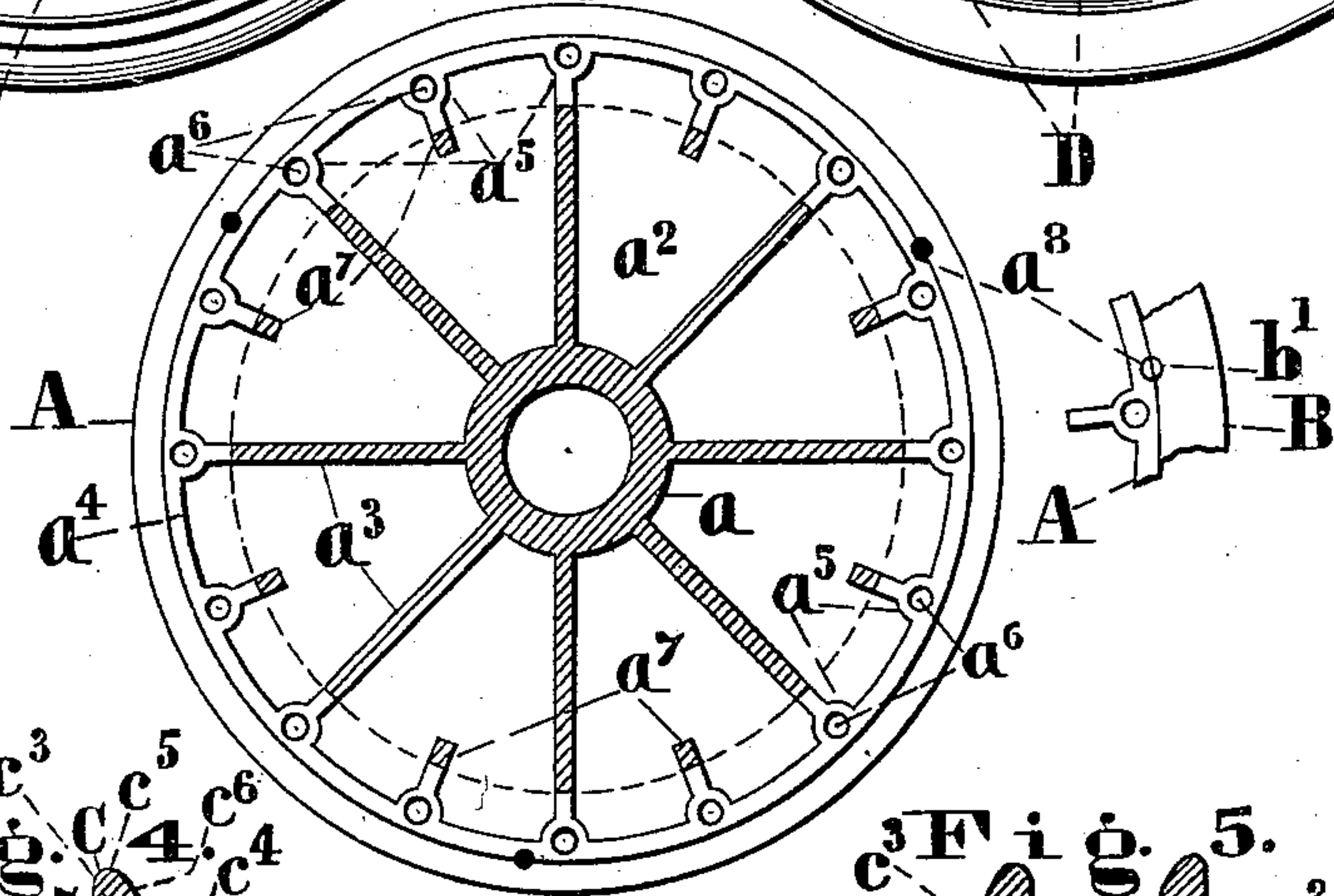


Fig. 3.



WITNESSES:
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JAMES RIGBY, OF MONTREAL, QUEBEC, CANADA.

CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 241,069, dated May 3, 1881.

Application filed October 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES RIGBY, a citizen of the United States, residing at Montreal, in the Province of Quebec, Canada, have invented
5 a new and useful Improvement in Car-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked
10 thereon.

This invention relates to that class of metal wheels which are provided with removable tires and flanges; and it consists, mainly, in certain special features of construction, fully described
15 hereinafter, by means of which great strength is obtained with a low cost of production.

In the drawings, Figure 1 represents an elevation of the outer side of my improved wheel; Fig. 2, an elevation of the inner side; Fig. 3,
20 an elevation taken from the inner side, with the plate a' cut away to show the interior; and Figs. 4 and 5, vertical sectional elevations.

To enable others skilled in the art to make my improved wheel, I will proceed to describe
25 fully the construction of the same.

A, Figs. 1, 2, 3, 4, and 5, represents the body portion of the wheel, consisting of a hub portion, a , having an inner plate, a' , an outer plate, a^2 , and intermediate radial arms, a^3 , terminating in a peripheral ring portion, a^4 , as shown. These parts are cast together in one piece.

a^5 a^5 represent enlargements formed at the point of the union of the arms a^3 with the ring portion a^4 , and a^6 a^6 openings through them for
35 the securing-bolts, hereinafter referred to.

a^7 a^7 represent short arms, by means of which the ring portion is united to the inner and outer plate portions at points between the radial arms a^3 , as shown.

40 a^8 represents semi-cylindrical recesses located at proper points about the periphery of the wheel, the purpose of which will be fully described hereinafter.

B, Figs. 1, 3, 4, and 5, represents the tire
45 portion, consisting of a steel ring having one inclined side, b , and the semi-cylindrical recesses b' , Fig. 3, corresponding in location with the similar recesses in the body portion, as shown.

C, Figs. 1, 2, 4, and 5, represents the flange
50 portion, consisting of a steel ring having an inner portion, c , with parallel sides, a series of openings, c' , Fig. 4, and studs or pins c^2 , Fig. 5, the latter corresponding in size and location with the semi-cylindrical recesses in the body
55 portion and the tire. The studs are screwed into the flange portion after the same has been finished in the lathe.

c^3 , Fig. 4, represents an outer portion of the ring, having an inclined face, c^4 , corresponding properly with the inclined face of the tire, and a flange portion proper, c^5 , having upon one side the curved face c^6 and upon the other the straight face c^7 , as shown. When the plates are properly united together the tire portion
65 rests upon the ring a^4 of the body portion, with its straight side bearing against the projecting portion of the outer plate, a^2 , as shown. The semi-cylindrical recesses coincide with each other, so that a proper opening is formed
70 for the studs c^2 upon the flange portion. The flange portion rests upon the periphery of the inner plate, a' , and against the body portion, as shown, its inclined face coinciding with the inclined face of the tire. Its studs c^2 rest in
75 the recesses of the body and tire, and thus securely hold the tire against movement upon the body portion.

D D, Figs. 1, 2, 4, and 5, represent bolts, by means of which all the parts are firmly bound
80 together.

Some of the advantages of this special construction are as follows: By extending the outer plate, a^2 , far enough outward to hold the tire against lateral movement, the construction is
85 simplified and the cost is reduced. By the employment of the short arms a^7 , great strength and rigidity is obtained with a small amount of material. By the employment of the studs c^2 and the corresponding recesses the necessary connection between the parts is obtained.
90 The flange portion c^3 , before the studs are inserted, may be readily finished in the lathe.

Having thus fully described my invention, what I claim as new, and desire to secure by
95 Letters Patent, is—

1. In combination with the body portion having the inner plate extending outward to hold

the tire, the removable tire portion and flange portion, as described.

2. The body portion having the inner and outer plates, the radial arms a^3 , and the short
5 arms a^7 , as described.

3. In combination with the body portion and tire having recesses, as described, the flange portion having the studs, as described.

This specification signed and witnessed this
27th day of October, 1880.

JAMES RIGBY.

Witnesses:

H. W. BEADLE,
M. M. ROHRER.