

(No Model.)

W. SHERIDON.
WHEEL.

No. 379,250.

Patented Mar. 13, 1888.

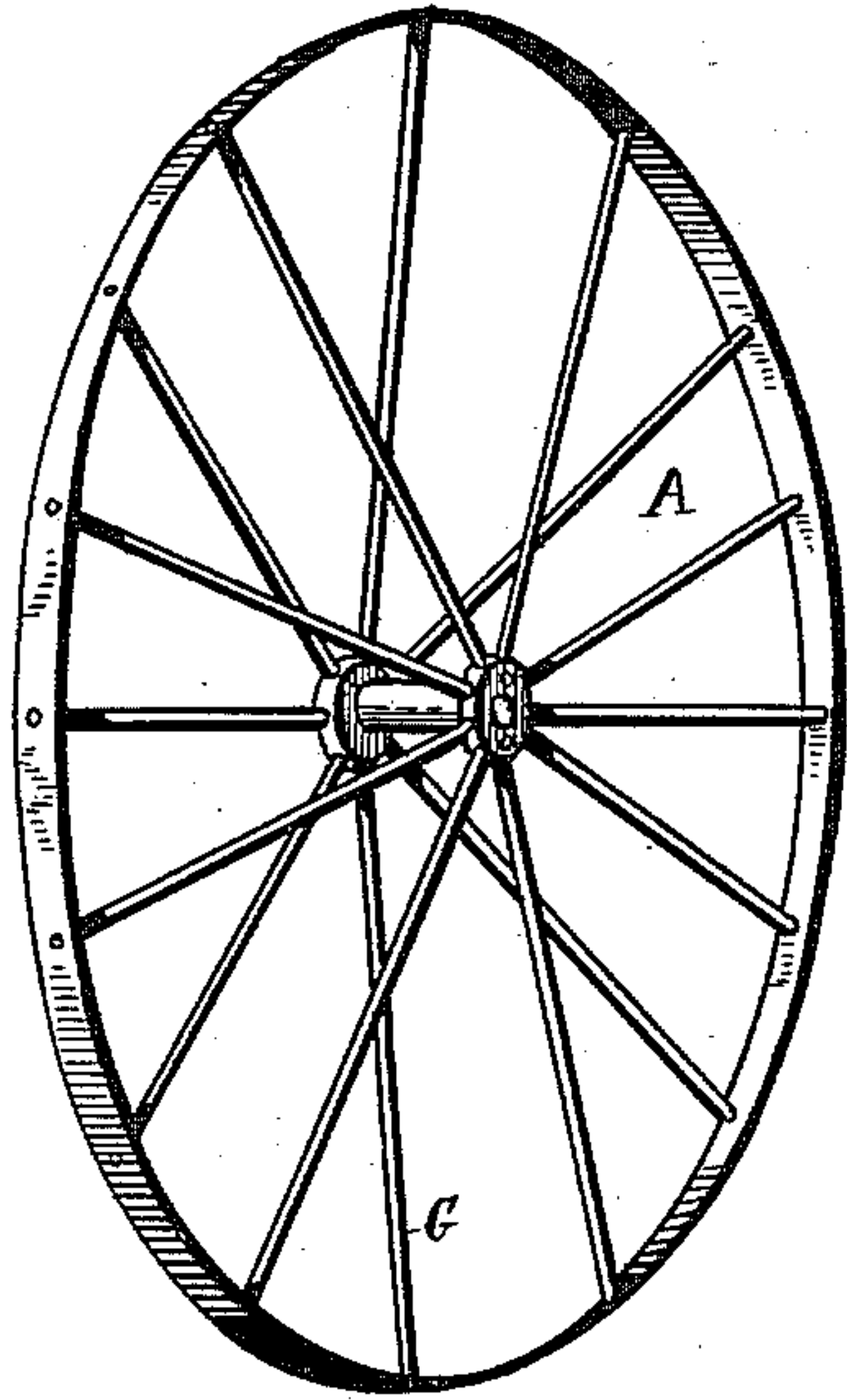


Fig. 1.

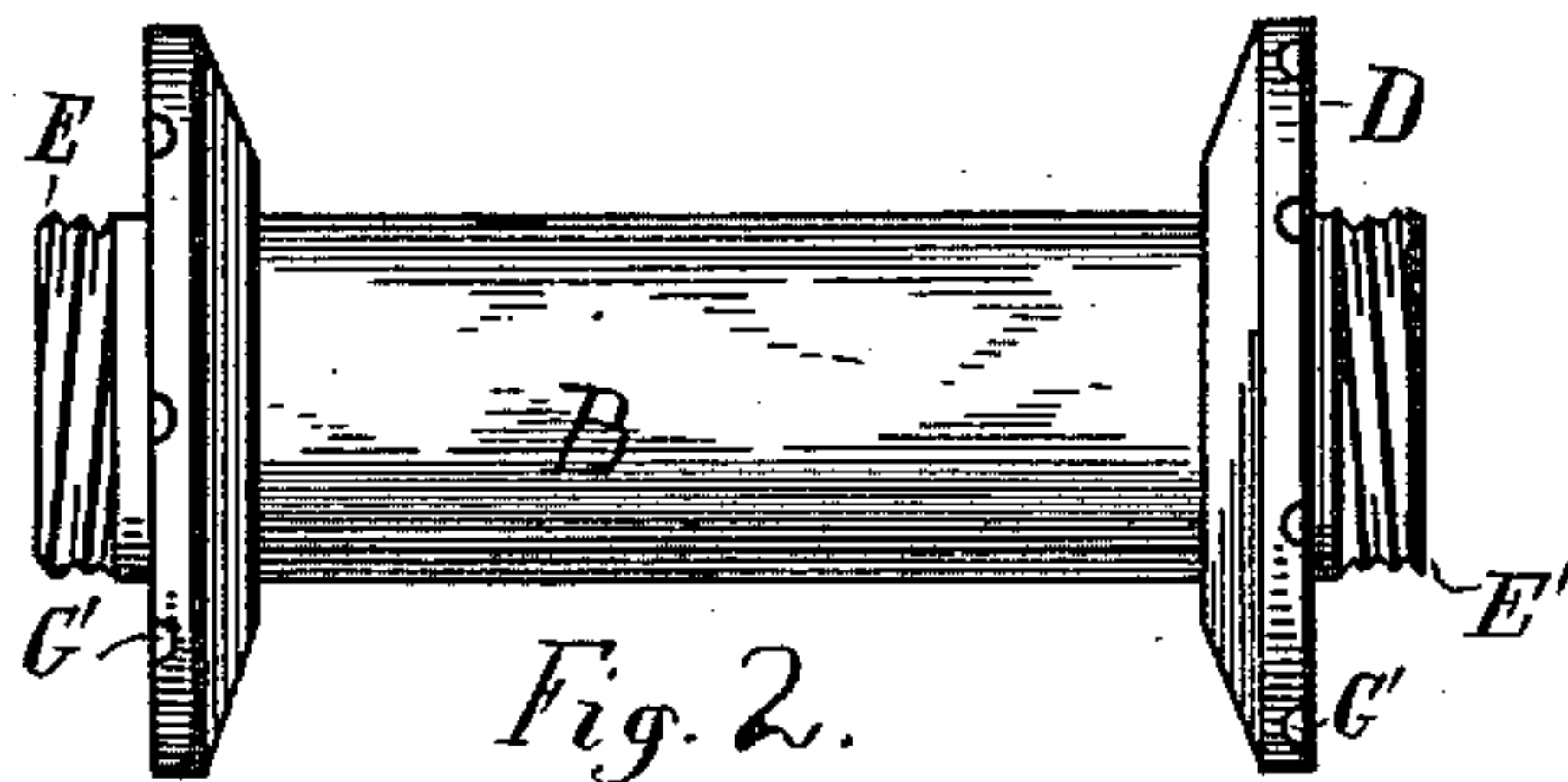


Fig. 2.

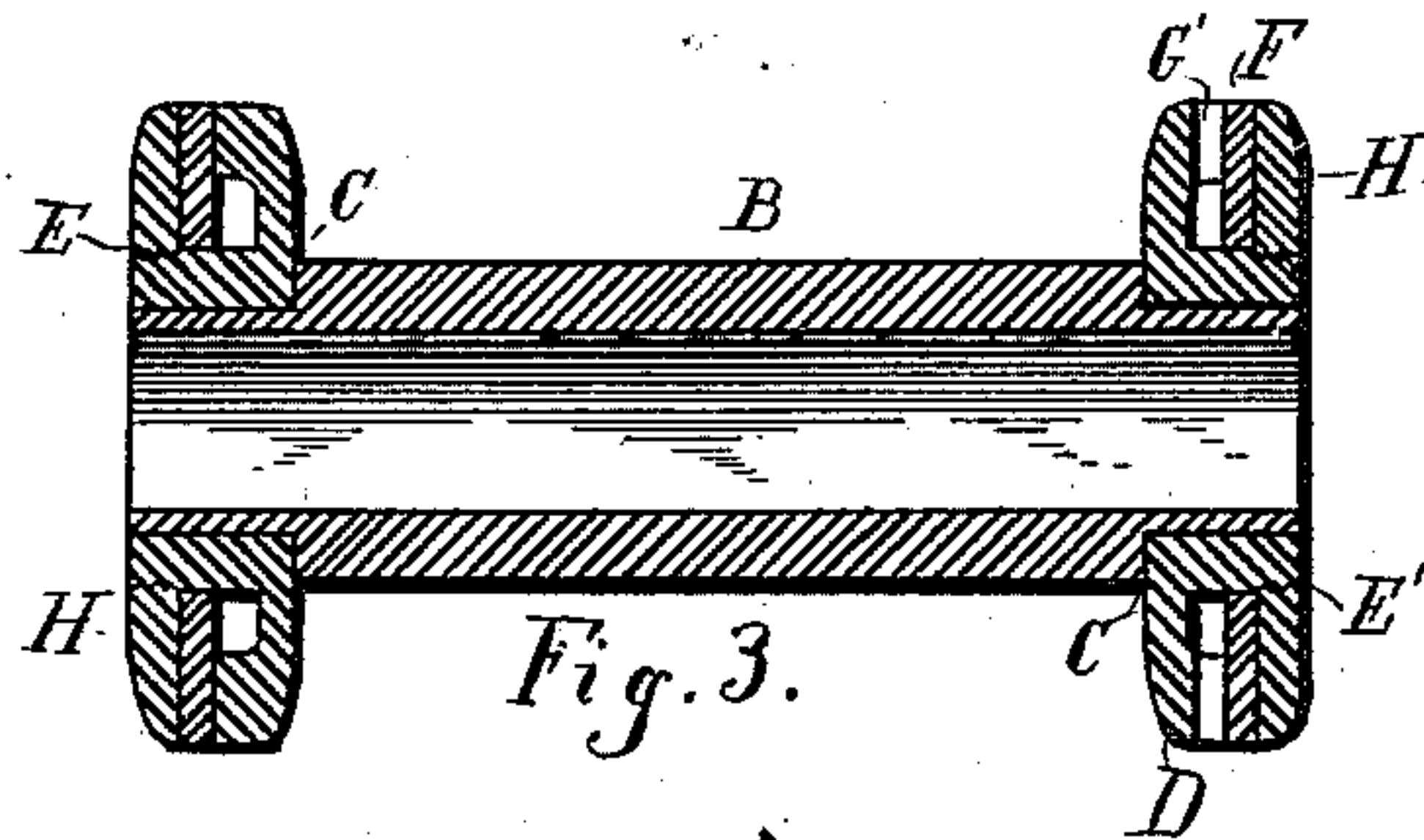


Fig. 3.

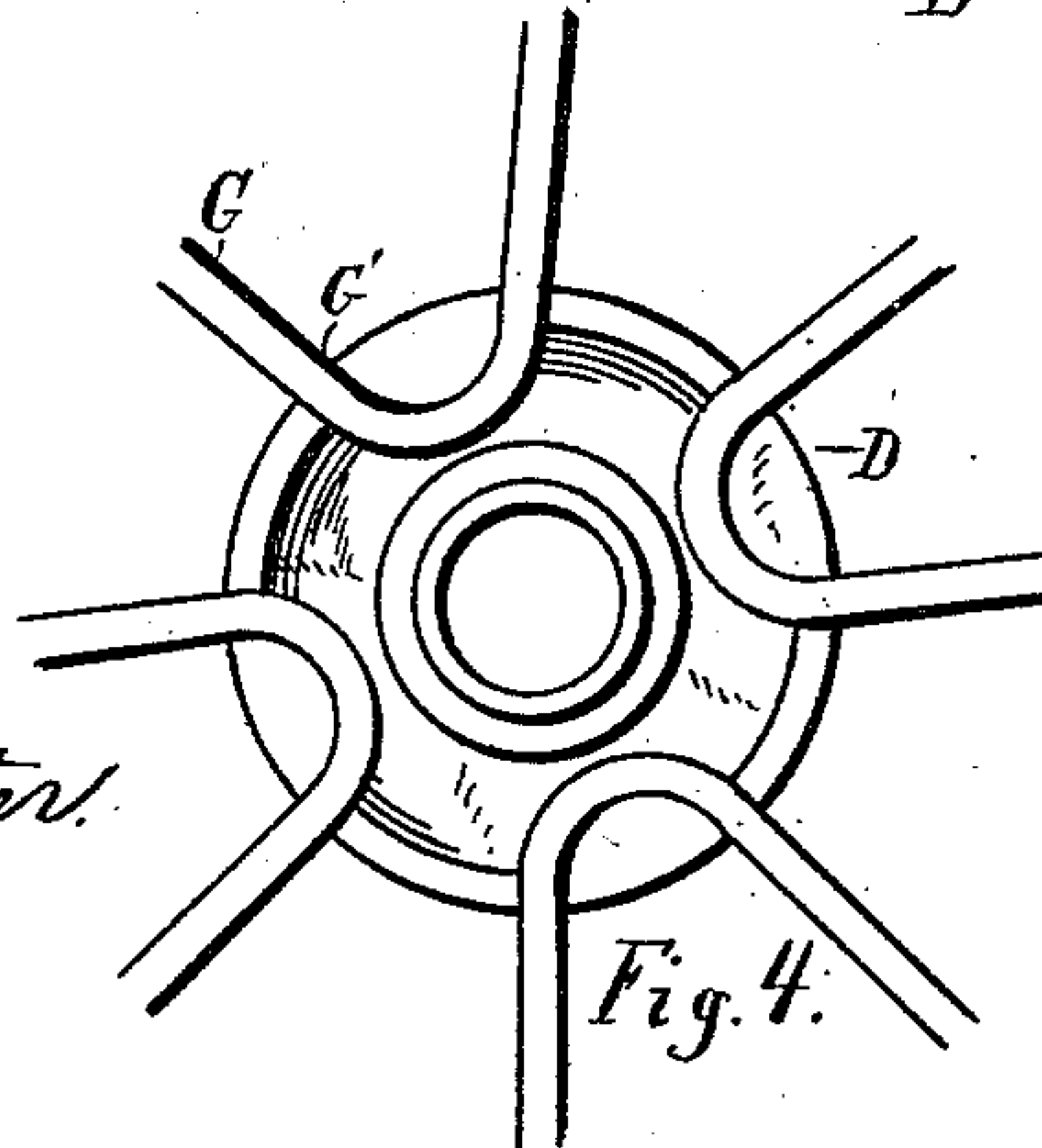


Fig. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM SHERIDON, OF NORTH TOLEDO, OHIO, ASSIGNOR OF FORTY-FIVE ONE-HUNDREDTHS TO WILLIAM LEUTZ, OF SAME PLACE.

WHEEL.

SPECIFICATION forming part of Letters Patent No. 379,250, dated March 13, 1888.

Application filed September 19, 1887. Serial No. 250,147. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SHERIDON, a citizen of the United States, residing at North Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Metal Wheels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to metal wheels, especially that class of wheels used for children's carriages, bicycles, velocipedes, &c., and has especial reference to the construction of the hub, the object being to simplify the construction as well as to reduce the expense of manufacture and to provide for the easy insertion or removal of the spokes, and also for holding the parts in place by right and left hand threaded nuts, thereby preventing their becoming loosened by the revolution of the wheel.

My invention also consists in certain parts and combinations of parts, as will be more fully explained and expressed in the claims.

In the drawings, Figure 1 is a perspective view of a complete wheel constructed in accordance with my invention. Fig. 2 is a detail view showing the hub, the spokes, washers, and nuts being omitted. Fig. 3 is a longitudinal vertical sectional view through the hub, with the washers and nuts in place. Fig. 4 is an end view of the hub, the washers and nuts being removed, and showing the mode of attaching the spokes to the right-angled collar.

Like letters of reference indicate like parts throughout the several views.

A designates the wheel; B, the hub, having a longitudinal axial opening for the journal. The end portions of the hub are reduced for some distance, thereby forming shoulders C, against which the inner sides of collars D abut, a right-angular tubular portion, D', of said collar, cast or formed integral therewith, encircling and resting upon the reduced end of the hub, the ends thereof E' being screw-threaded, one having a right-hand and the other a left-hand thread, as shown in Fig. 2.

Collar D is provided with ears or lugs D'', formed by coring out channels G' in substantially U shape, into which the bends of the joined pairs of spokes G are placed, their outer ends being secured to the rim of the wheel.

F are washers, one being placed upon each end of the hub, and fitting over the tubular extension D' of collar D. H are nuts, one being provided with a right and the other with a left hand thread, adapted to be run upon the right and left hand threads, respectively.

To form a wheel of the parts described, collars D are placed upon the reduced ends of the hub, the bends of the joined spokes are inserted in channels G', washers F are placed upon the tubular extensions D' of collar D, and nuts H screwed tightly against washers F, thereby securing the parts firmly in place, the spokes being secured to the rim in the usual manner.

In case of breakage or injury to a spoke, whereby it becomes necessary to remove the same, nut H is unscrewed, washer F removed, and the spoke can be quickly removed without affecting the remaining ones or injury to the hub.

It will be seen that all the parts of the hub can be cast, requiring but a minimum amount of fitting, the bearing-plate being also in such relation as to insure great strength and rigidity.

In the usual construction of wheels of this character the end nuts of the hub have been provided with right-hand threads. The inner nut, by its friction with the shoulder of the axle, is maintained in its proper position. The outer one, however, by its centrifugal motion, tends to unscrew, thereby relaxing the tension of the parts, as well as being in danger of being lost. By my construction of right and left hand threads this difficulty is overcome, and the revolution of the wheels tends to tighten the nuts, a feature of great importance in this class of wheels.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a metal wheel, a hub consisting of a single annular bearing portion having reduced ends, collars having tubular extensions at right angles thereto encircling the reduced

ends of the hub, the extensions being threaded at their peripheries, channels in the collars for the insertion of spokes, and a washer and nut upon each extension for holding the spokes within the channels, as and for the purpose set forth.

2. In a metal wheel, collars having tubular extensions, one for each side of the wheel, one extension having a right and one a left hand thread upon their peripheries, with nuts having corresponding threads, in combination

with an annular bearing portion, having the periphery of each end reduced in diameter, and upon which the tubular extensions fit, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

WILLIAM SHERIDON.

Witnesses:

WILLIAM LEUTZ,
JAMES E. RAYMER.