

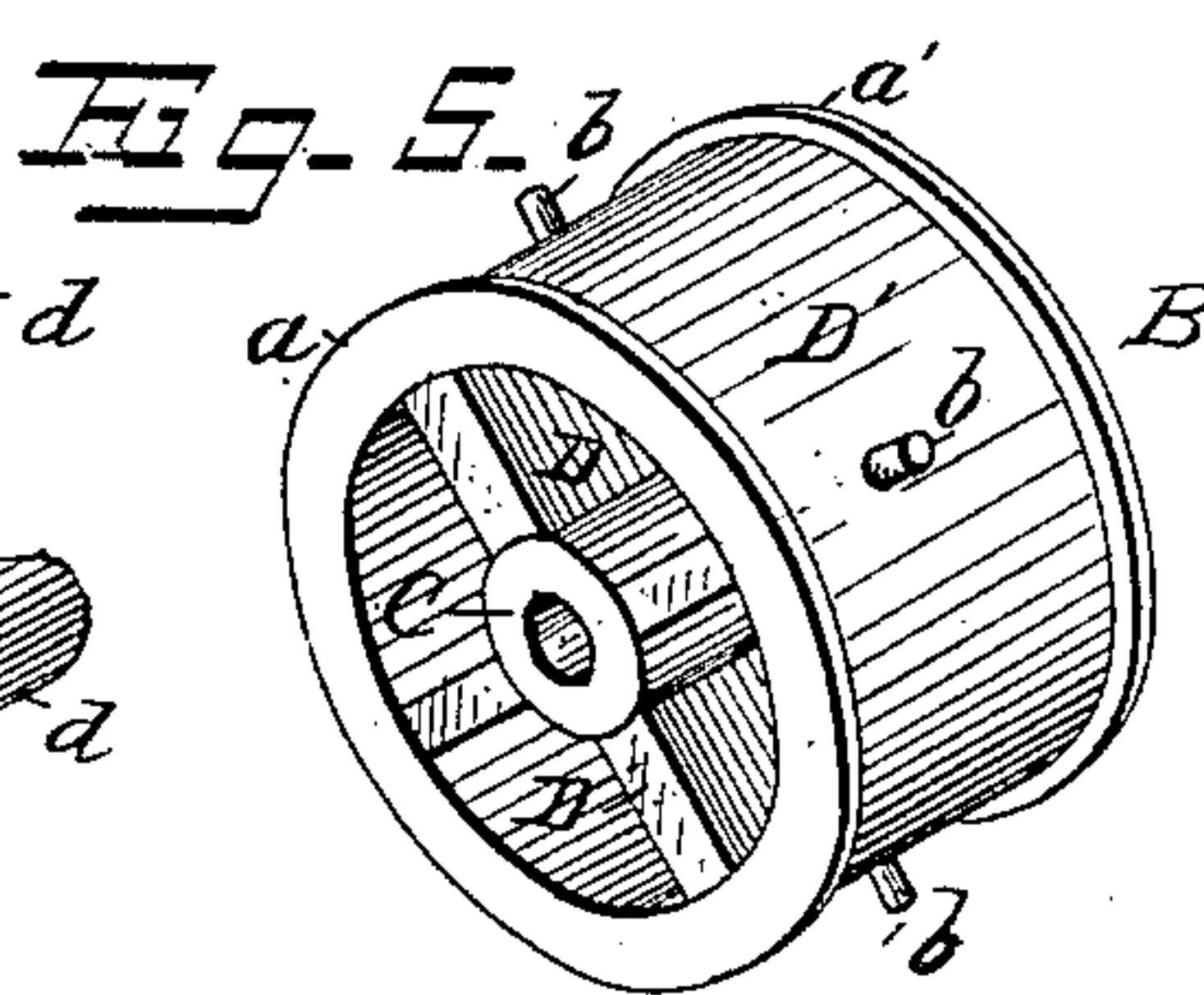
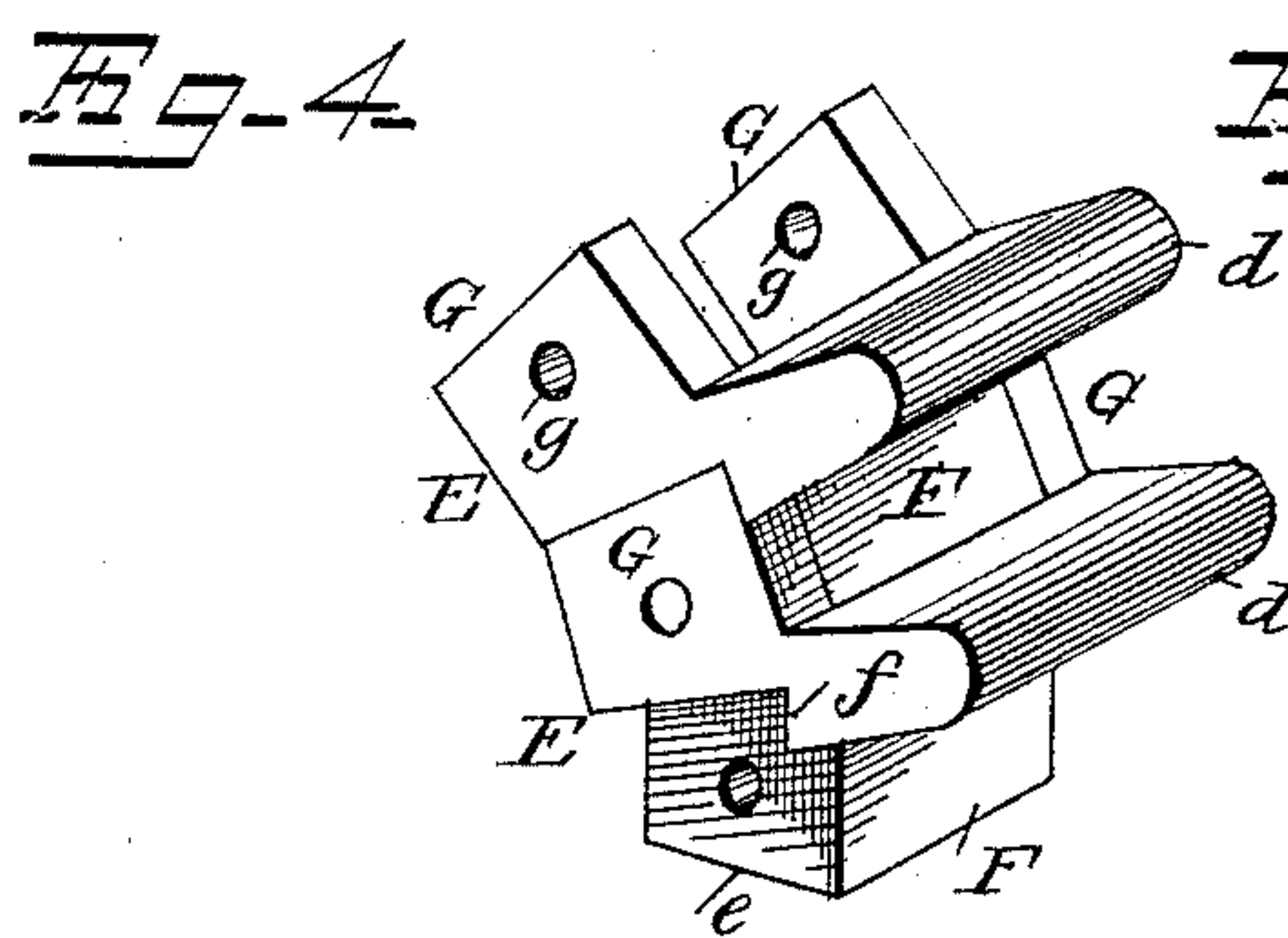
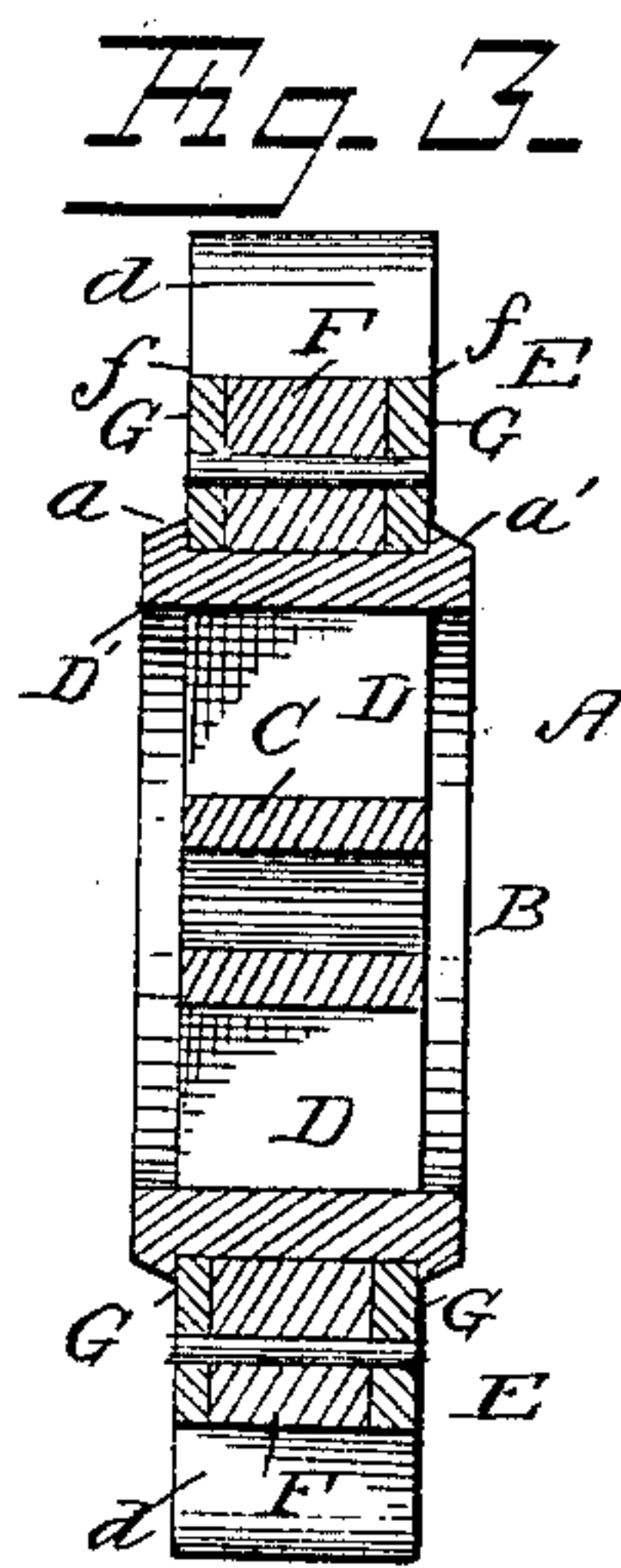
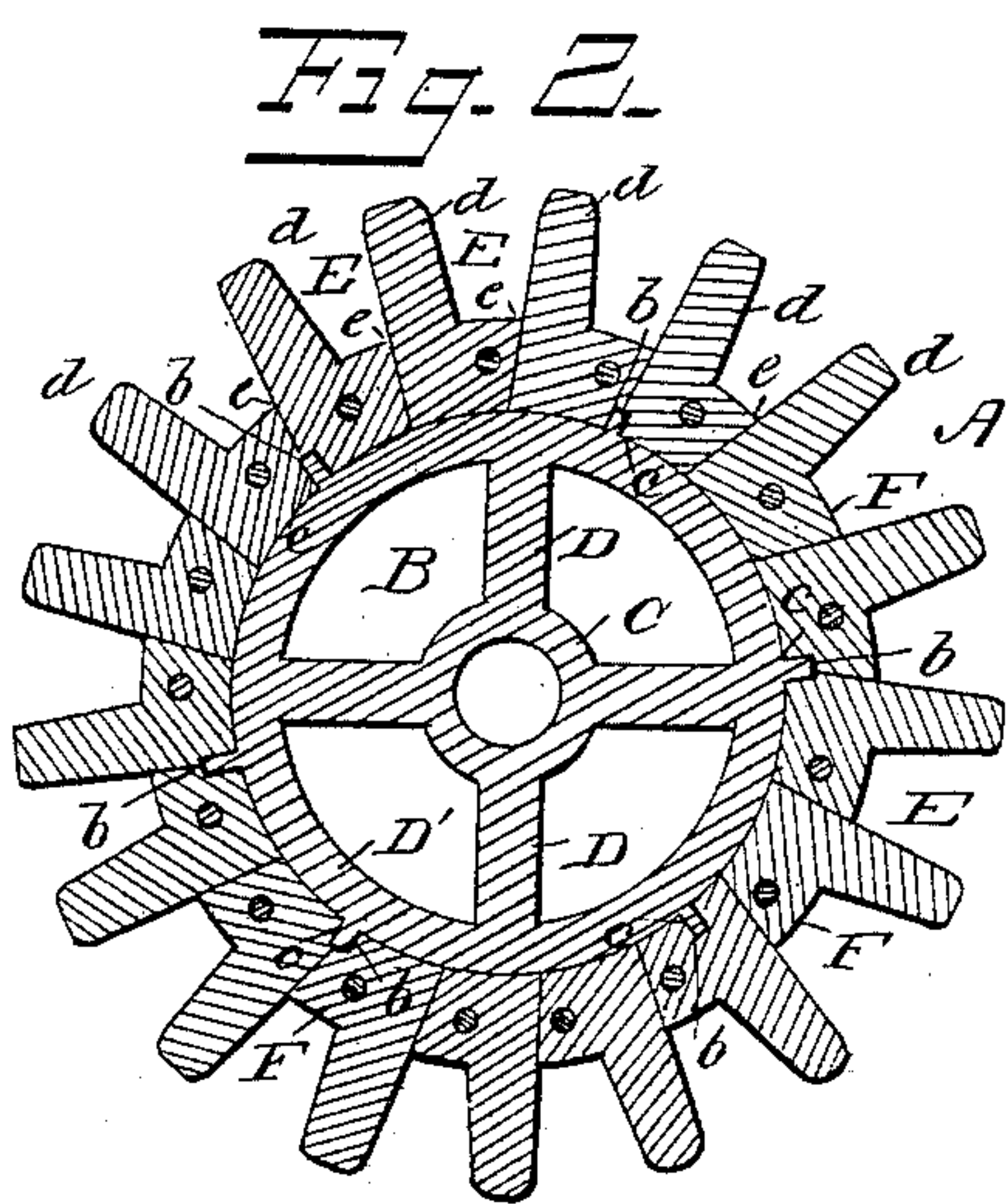
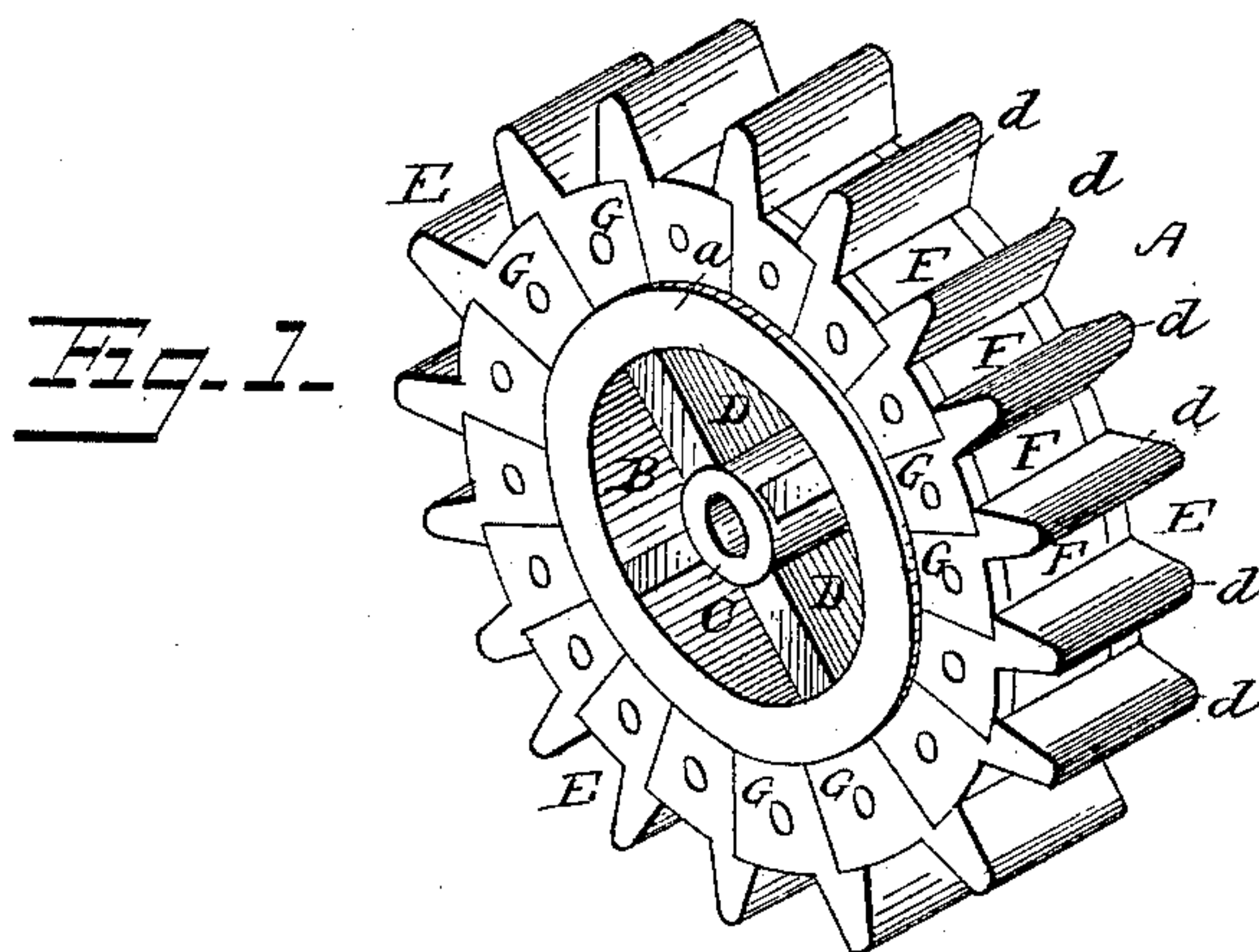
(No Model.)

H. O. GADBERRY.

COG WHEEL.

No. 324,932.

Patented Aug. 25, 1885.



WITNESSES

F. L. Ourand.
Wm. Bagger.

INVENTOR

Harvey O. Gadberry
by *C. A. Snow*
Attorney

UNITED STATES PATENT OFFICE.

HARVEY O. GADBERRY, OF WASHINGTON, INDIANA.

COG-WHEEL.

SPECIFICATION forming part of Letters Patent No. 324,932, dated August 25, 1885.

Application filed September 28, 1883. Renewed February 16, 1885. (No model.)

To all whom it may concern:

Be it known that I, HARVEY O. GADBERRY, a citizen of the United States, residing at Washington, in the county of Daviess and State of Indiana, have invented a new and useful Cog-Wheel, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to cog-wheels, the object being to provide wheels of this class with insertible teeth or cogs.

The invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improved cog-wheel. Fig. 2 is a vertical section of the same. Fig. 3 is a transverse vertical section. Fig. 4 is a detail view of two of the insertible teeth, and Fig. 5 is a perspective view of the core.

A represents the wheel, the teeth or cogs of which are formed in sections and adapted to be removably secured together.

B represents the core, which comprises the hub C, the spokes D, and the rim D', which is formed with flanges *aa'*, and provided with radially-projecting spurs *b*, which are adapted to fit into recesses *c* in the under sides of the cog-sections.

E represents the insertible cog-sections, provided with the teeth *d*, which are beveled on their ends *e*, as shown. These cog-sections are cast in one piece of metal and formed with a block or head, F, extending at an angle from the beveled tooth *d*. This block F is formed with angular shoulders *f*, to serve as a bearing for the ends of the wings of the sections to be secured thereto.

G represents wings extending from the sides of each and in the opposite direction of the block F. These wings or arms are provided with perforations *g g*, and are adapted to receive and retain the block of an adjacent tooth, which is also perforated, the ends of the wings bearing against the shoulders formed on said block. The under side of the cog-sections are recessed to receive the radially-projecting spurs *b*, formed on the face of the tire of the core. By the engagement

of these spurs *b* with the said recesses, all liability of the core's slipping or turning without revolving the cogs is avoided.

The mode of constructing the wheel is as follows: The cog-sections are arranged on the face of the tire, said sections resting between the flanges, which prevent any lateral movement of the cog-sections, the spurs entering the recesses in the under side of the sections, the block of one cog-section resting between the wings of the adjacent section, the ends of the wings bearing against the angular shoulders of said block. A bolt or rod is then passed through the perforations of the wings and block which register with each other.

It will be apparent that a cog-wheel constructed as above described is of cheap, simple, and durable construction, and in the event of one or more of the teeth becoming broken they may be removed and others inserted with but little trouble.

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

1. In a cog-wheel, the combination, with a core having a rim or tire provided with flanges and radially-projecting spurs formed on the face of said tire and integral therewith, of insertible cog-teeth arranged on the face of the said tire between the flanges thereof, and having recesses on their under sides to receive the spurs of the said tire, substantially as set forth.

2. In a cog-wheel, the combination, with a suitable core, of insertible cog-teeth arranged upon the tire thereof, said teeth being adapted to be firmly secured together by bolts passing transversely through the wings and the block of the adjoining section, substantially as set forth.

3. The combination, with a core, of cog sections secured thereto and consisting of the teeth, blocks, and laterally-extending wings, substantially as set forth.

4. The combination, with a core, of insertible cog-sections consisting each of a beveled tooth and a block extending therefrom and formed with angular shoulders, and wings extending from the sides of the cog-section in

the opposite direction of the block and adapted to receive a block of the next adjoining section, substantially as set forth.

5. An insertible cog-section consisting of the cog-tooth beveled on its end, a block having angular shoulders, and laterally-extending wings, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HARVEY O. GADBERRY.

Witnesses:

DANIEL KEEFE,
DAVID SOLOMON.