

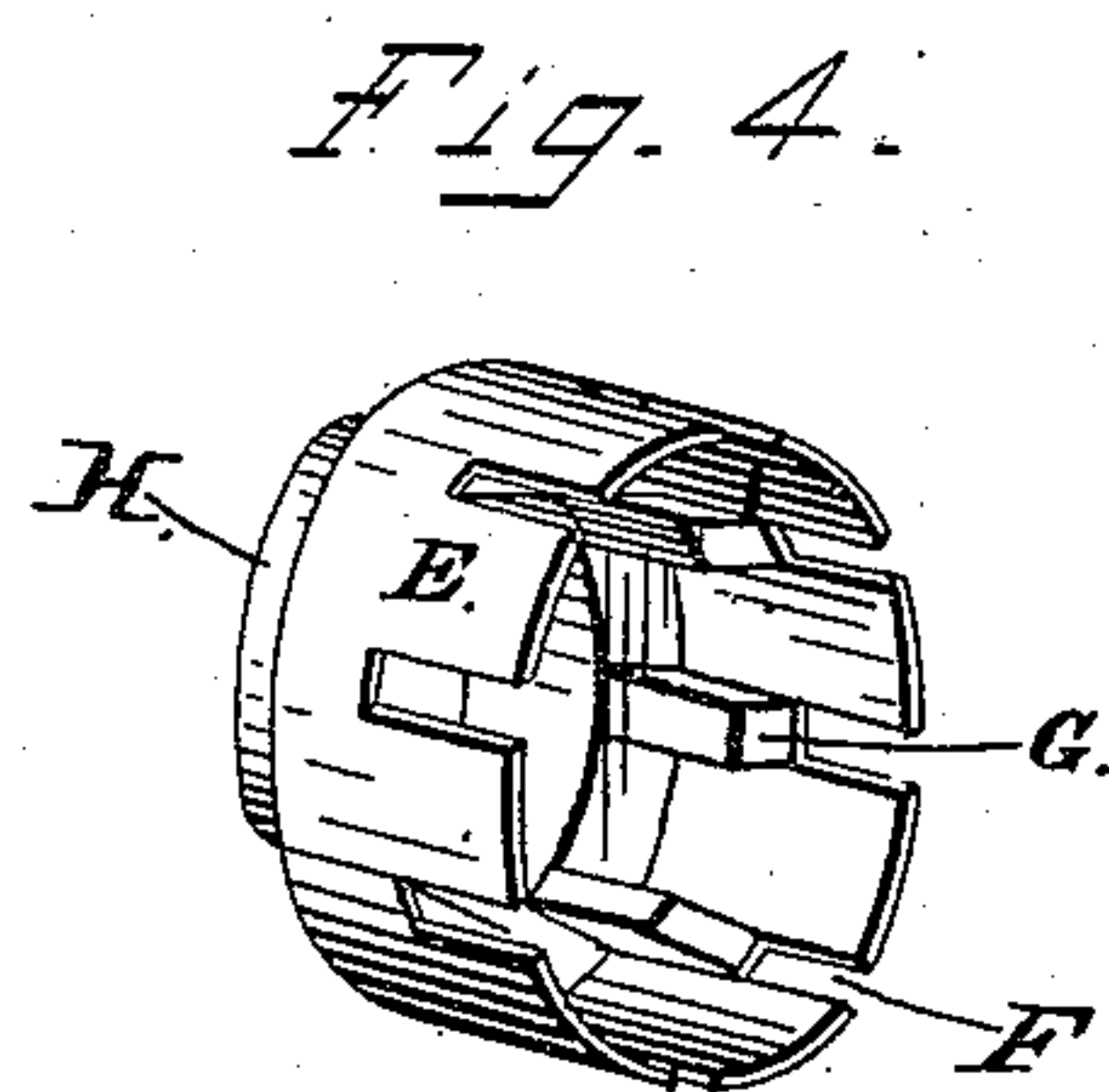
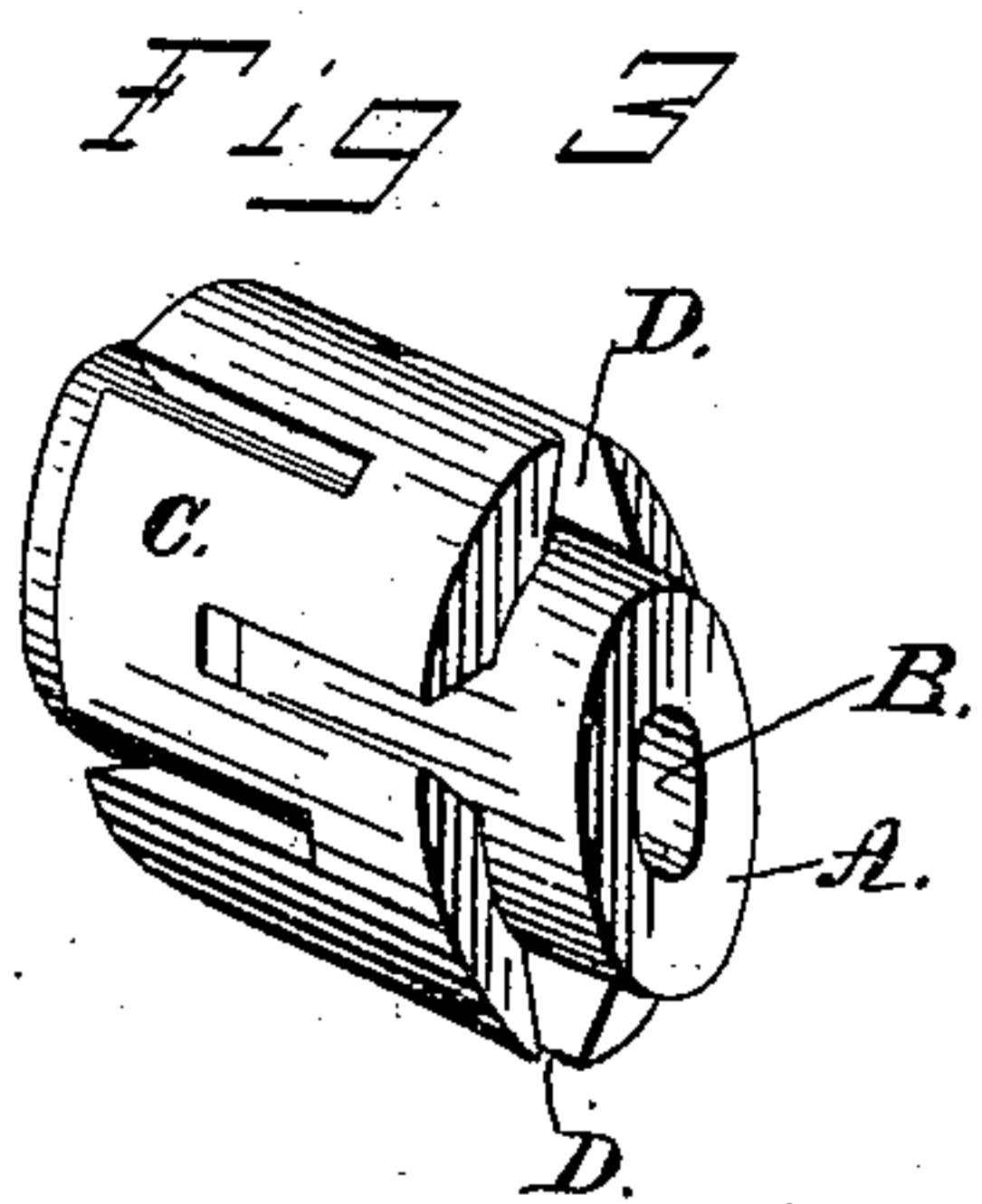
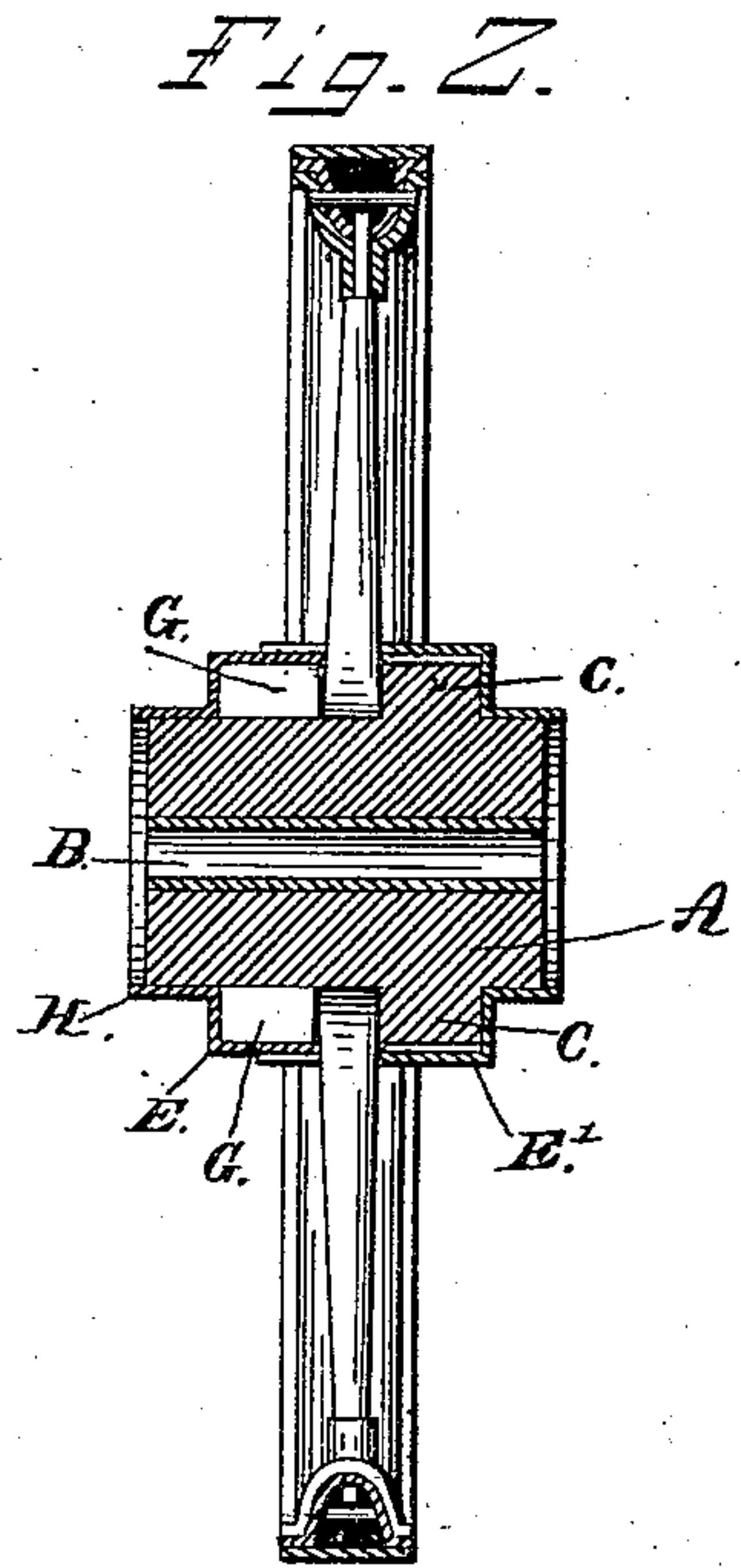
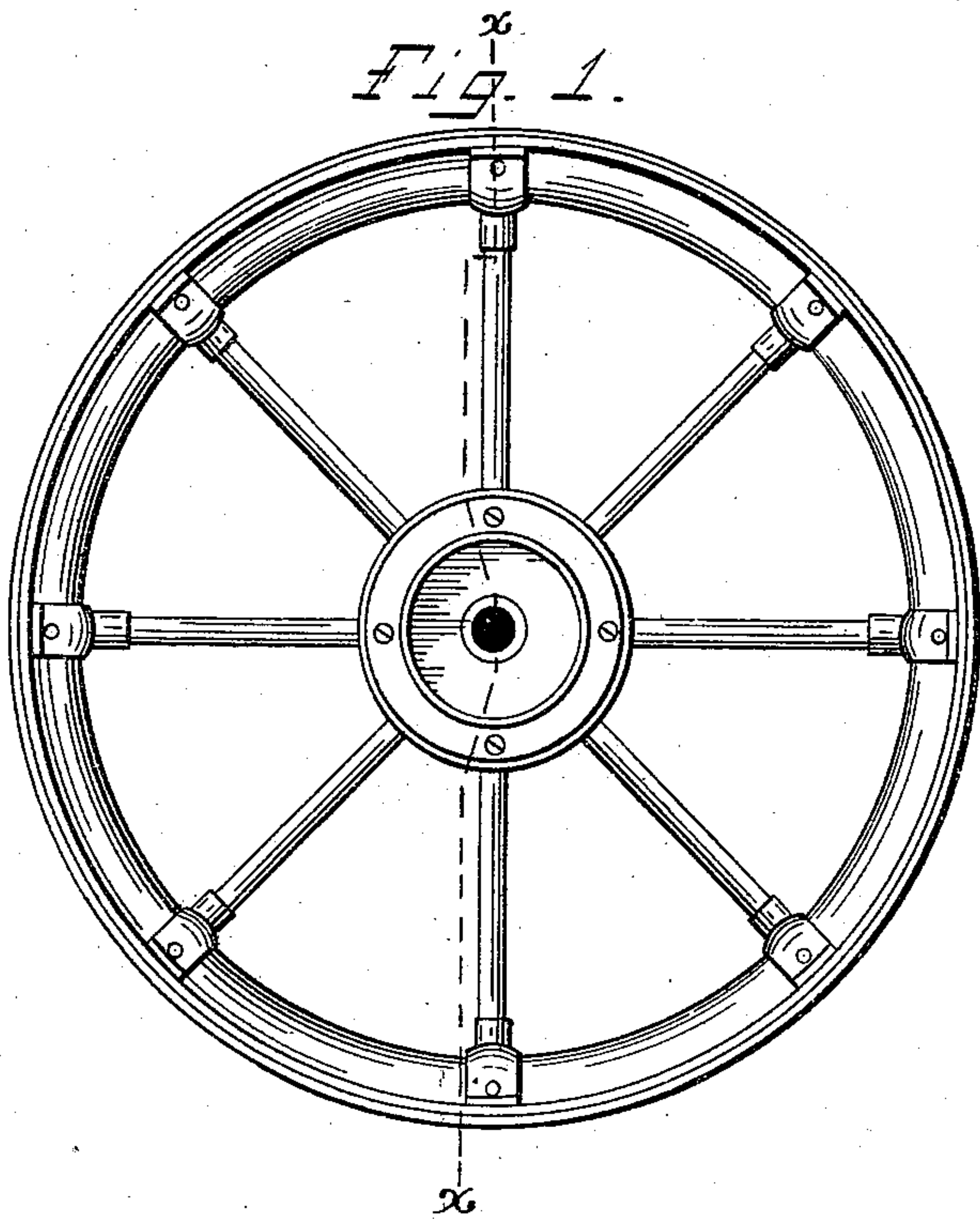
(No Model.)

E. T. BURGESS.

WHEEL.

No. 334,163.

Patented Jan. 12, 1886.



Witnesses.  
G. P. Kramer.  
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# UNITED STATES PATENT OFFICE.

EDWARD THOMAS BURGESS, OF MERIDEN, CONNECTICUT.

## WHEEL.

SPECIFICATION forming part of Letters Patent No. 334,163, dated January 12, 1886.

Application filed July 15, 1885. Serial No. 171,666. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD T. BURGESS, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Wheels; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in vehicle-wheels, or may be used in any kind of wheels; and it consists of certain novel features, hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a wheel provided with my improvements, and Fig. 2 is a vertical cross-section of the same on the line X X, Fig. 1. Fig. 3 is a detail perspective view of the hub, and Fig. 4 is a detail perspective view of one of the metal caps.

A is the hub. It is made, preferably, of wood and provided with a metal sleeve, B, inserted through the axle-opening, as shown, although it could be made entirely of metal, if so desired. The hub is provided with a raised portion, C, running entirely around it, as shown. This raised portion is less in length than the main portion of the hub, and is provided with recesses or spoke-sockets D along both its edges. These recesses are formed alternately on the opposite sides of the raised portion of the hub, as shown, and extended inward a sufficient distance to bring all the spokes into a straight line around the center of the hub, if necessary. Two metal caps, E E', are placed on the hub. These caps overlap each other, as shown in Fig. 2, and are provided with notches or open-ended slots F, corresponding to the recesses D. At the back or closed ends of the notches E are placed blocks G, the function of which will presently appear. The caps E E' are conformed to the shape of the hub by being cast with a cylindrical portion, H, slightly longer than the projecting ends of the main portion of the hub, and of such a diameter that it will

fit snugly around the same. At the end of this cylindrical portion it is bent outward at right angles, and is then bent back to its original direction, as shown, thus fitting around the hub.

The portion H of my metal cap serves as a sand-band, and by using my form of hub and cap the ordinary sand-band can be dispensed with. After the spokes have been placed in the recesses D the metal caps are placed over the hub from its opposite ends, the blocks G fitting in these recesses D, and the notches F fitting around the spokes. The spokes will by this means be held securely in the hub, and will be prevented from working loose.

While any form of wheel-felly could be used and the spoke held therein in any desired manner, I have shown a form which I prefer to use. In this form the spokes are provided with tenons, which are inserted in a hollow U-shaped felly.

A stirrup is placed on the felly and fits around a portion of the spoke-tenon. The stirrup is held on the felly by a pin, rivet, or bolt inserted through the felly and stirrup.

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

1. The combination of a hub having spoke-recesses formed alternately in opposite edges with a pair of metal caps having coincident notches to correspond with the recesses in the hub, and placed thereon from its opposite ends to overlap each other, substantially as and for the purpose specified.

2. The combination of a hub alternately recessed on its opposite edges with a pair of caps having notches to correspond with the recesses in the hub, and provided with blocks in alignment with the notches, whereby when the caps are passed on the opposite ends of the hub, the blocks fitting in its recesses and the notches fitting around the spokes, the latter will be securely held in place, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD THOMAS BURGESS.

Witnesses:

SILAS A. HULL,

BENJ. PAGE.