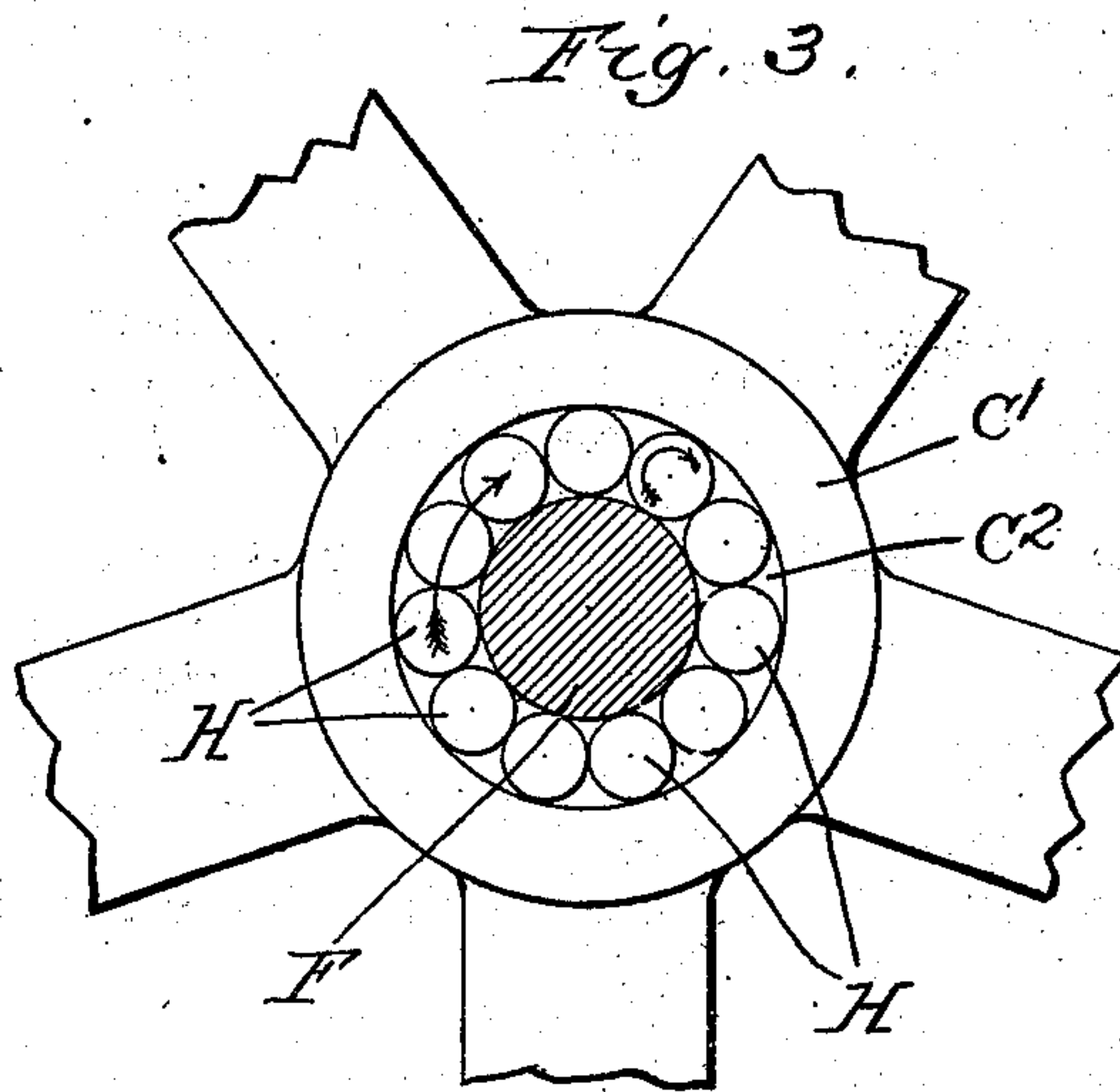
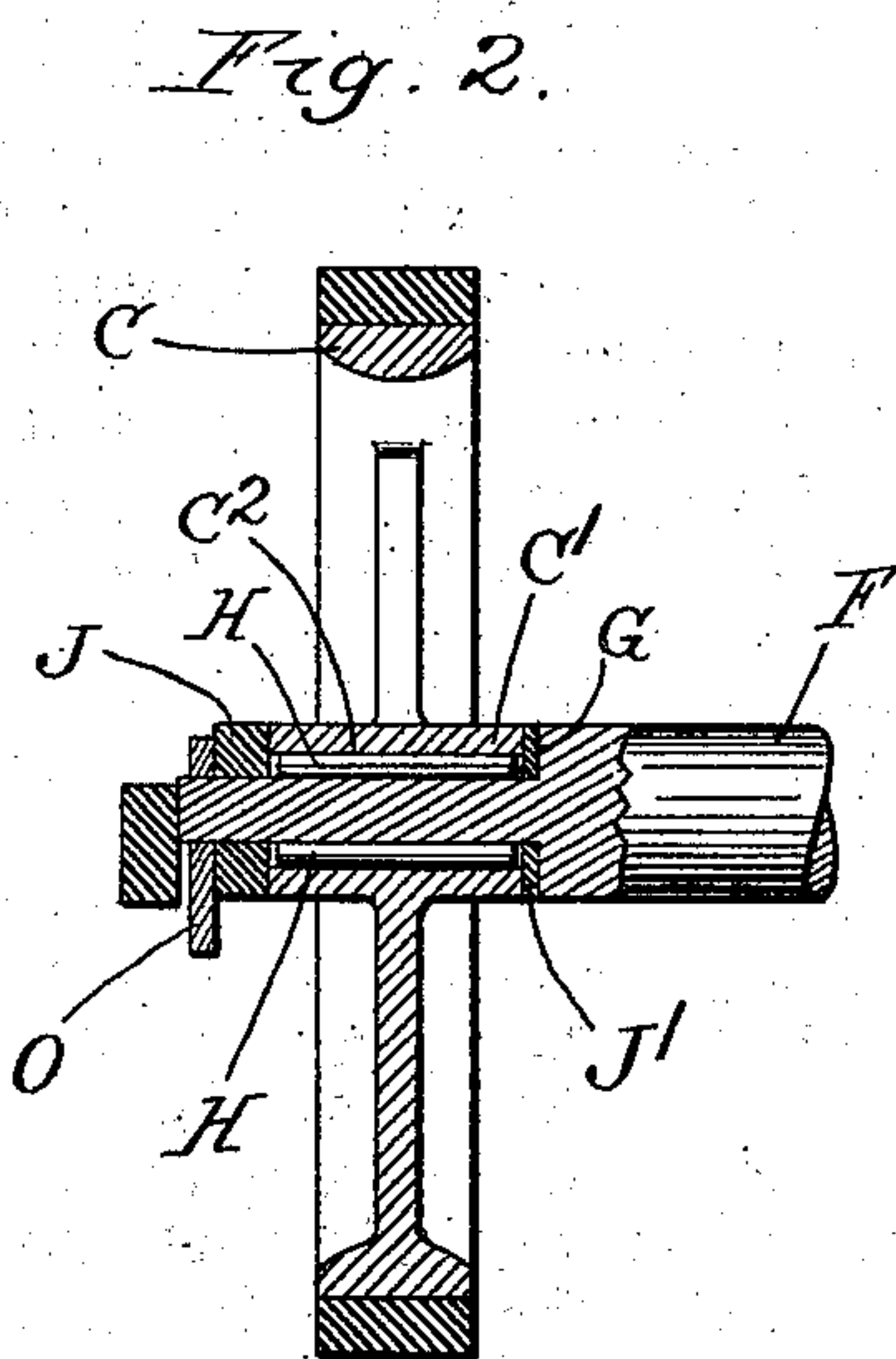
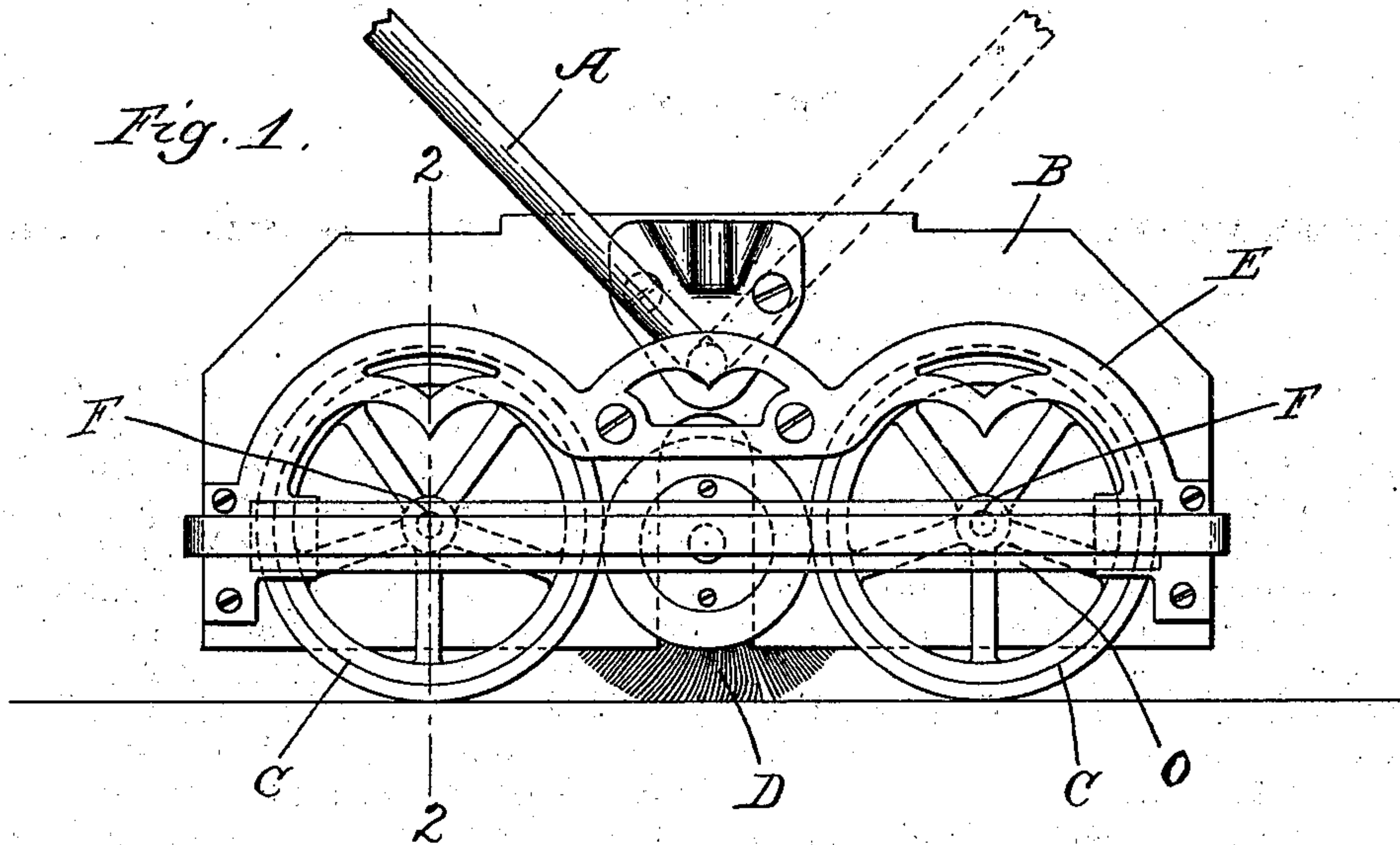


No. 695,434.

Patented Mar. 18, 1902.

T. H. BEDELL.
CARPET SWEEPER.
(Application filed June 10, 1901.)

(No Model.)



Witnesses.

Edward T. Wray.
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UNITED STATES PATENT OFFICE.

THOMAS H. BEDELL, OF MARION, INDIANA.

CARPET-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 695,434, dated March 18, 1902.

Application filed June 10, 1901. Serial No. 63,987. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. BEDELL, a citizen of the United States, residing at Marion, in the county of Grant and State of Indiana, have invented a certain new and useful Improvement in Roller-Bearings for Carpet-Sweepers, of which the following is a specification.

My invention relates to antifriction-bearings particularly intended for use in connection with carpet-sweepers.

In carpet-sweepers there is from time to time an effective bearing action between the wheels and the axles on which they rotate at every point about the circle except at the bottom, and it is therefore important that the same arrangement, so far as possible, should be had about the circle to make a uniform effect. A carpet-sweeper is also a device which must be made with the least possible expense, as they are now sold very freely and at very low prices. This construction therefore must be extremely simple and capable of easy replacement of broken parts for adjustment.

I have illustrated this bearing in its use in connection with carpet-sweepers.

Figure 1 is an end view of a carpet-sweeper. Fig. 2 is a longitudinal section on line 2 2, Fig. 1. Fig. 3 is a cross-section through the spindle at one end of the hub.

Like parts are indicated by the same letter in all the figures.

A is the handle of the carpet-sweeper; B, the box or cover; C C, the wheels; D, the brush-roller; E, the end frame-piece on which the axles F F are journaled.

O is an end band or strip, which is preferably of spring metal and is in the same horizontal plane as the axles.

Each wheel C is provided with a hub C', which is hollowed out at C² to form a raceway between the inner surface of such hollowed part of the hub and the outer surface of the end of the axle.

The axle F is formed with a projecting spindle in the usual manner, leaving a shoulder at G to receive the end of the hub C'. In this annular space, snugly fitting all the way around, are placed a series of short, prefer-

ably steel, rollers H H. The rollers are preferably of the same length as the hub; but the spindle is somewhat longer, and about the outer end of the spindle is placed the loose collar or washer J, which is annular in shape, its inner diameter being the same as that of the spindle to receive the spindle and its outer diameter being the same as the outer diameter of the hub to cover the end of the hub and the ends of the rollers. By thus arranging the parts the rollers are free to travel around the annulus, as indicated by the large arrow in Fig. 3, and at the same time about their own axes, as indicated by the small arrow in Fig. 3. Thus they effectively act as antifriction-rollers at every point about the circle. The weight of the apparatus throws the crushing strain against those rollers which are uppermost for the time being, and the outward pressure of the elastic engagement between the brush-roller and the wheels causes a similar crushing strain to be applied to the rollers for the moment interposed between the axis of the wheel and the axis of the brush-roller. The action of the pressure applied at the handle to push the carpet-sweeper forward affects to a certain extent this last-named tendency.

The annular collar or piece J is tightly fitted and may be of any desired material to serve as a dust-proof connection, and a similar annular washer J' may be placed at the shoulder G, thus putting the rollers in a dust-proof raceway, where they work at all times and in all positions and travel each about its own axis and all in a progression about the axle. The parts are all thus held together by means of the end piece O, preferably of spring metal, as indicated.

It will be seen that by such a construction the several parts of the bearing can be made of the simplest possible form. The hub can be bored out, the shoulders formed in any simple manner, the rollers be made from ordinary wire, the annular collar be composed of any suitable material, and all the parts can be assembled together without the slightest difficulty, and they are securely held in position by the end of the sweeper or spring-bar preferably employed for that purpose.

The removal of such bar instantly lays bare all the parts, so that they can be removed and others supplied at will.

I claim—

5 In a roller-bearing for carpet-sweepers, the combination of an axle having a shoulder and a projecting spindle, with a wheel having a hub adapted to bear against the shoulder on the axle, but shorter than the spindle, a series of rollers in the raceway between the hub
10 and the spindle, an exterior washer covering the end of the raceway in which the rollers lie and tightly encircling the spindle, a second washer on the spindle between the shoulder

of the axle and the end of the hub and rollers, 15 said washers composed of a suitable material to serve as a dust-guard and thus to keep the roller-cavity dust-proof, and a spring-bar across the end of the spindle and hub to hold the parts together and the washers in posi- 20 tion and perforated to receive the end of the spindle to act as a journal-bearing for such spindle, substantially as shown and described.

THOMAS H. BEDELL.

Witnesses:

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