

(No Model.)

N. CAMPBELL.

SNOW SWEEPER.

No. 375,338.

Patented Dec. 27, 1887.

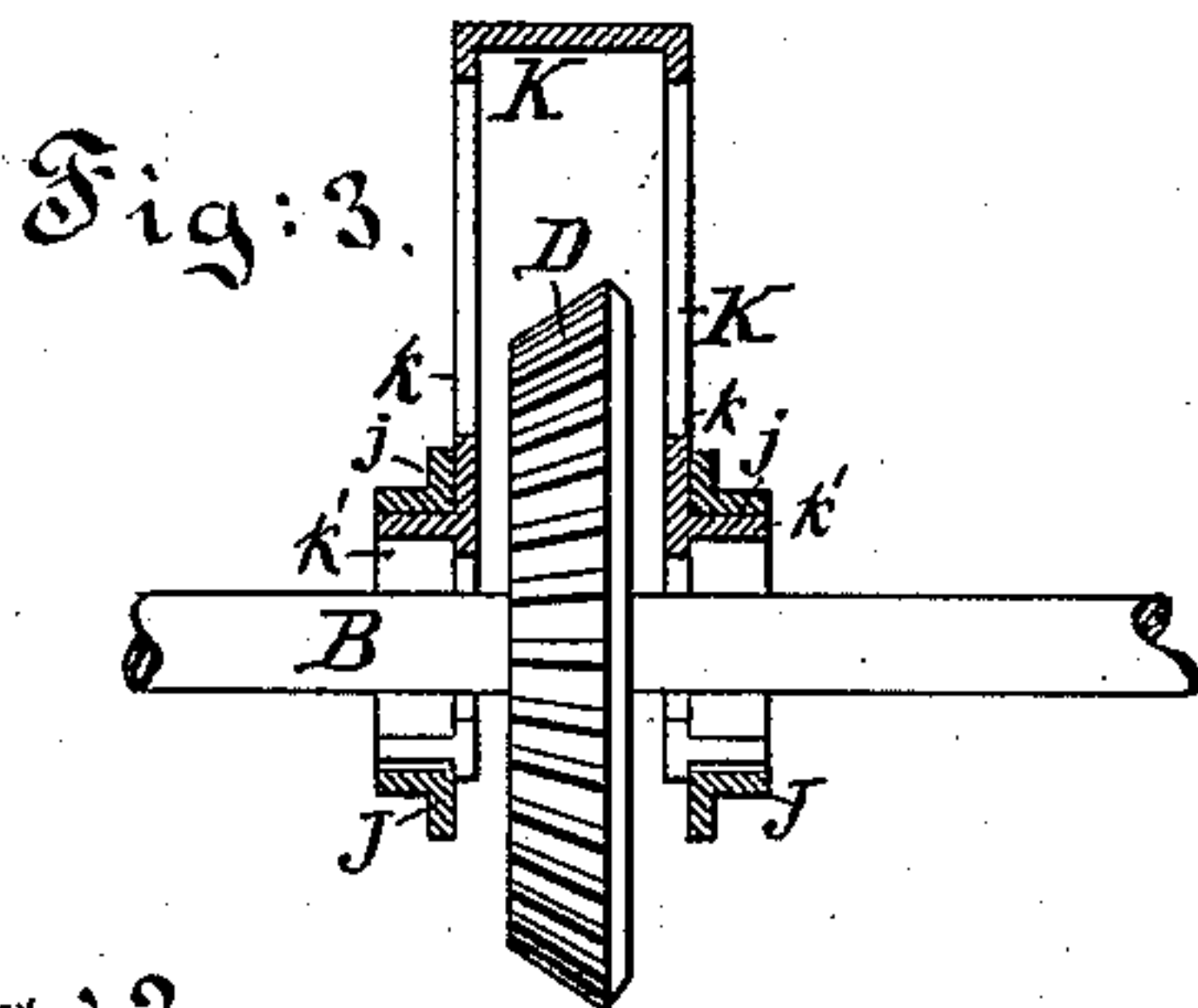
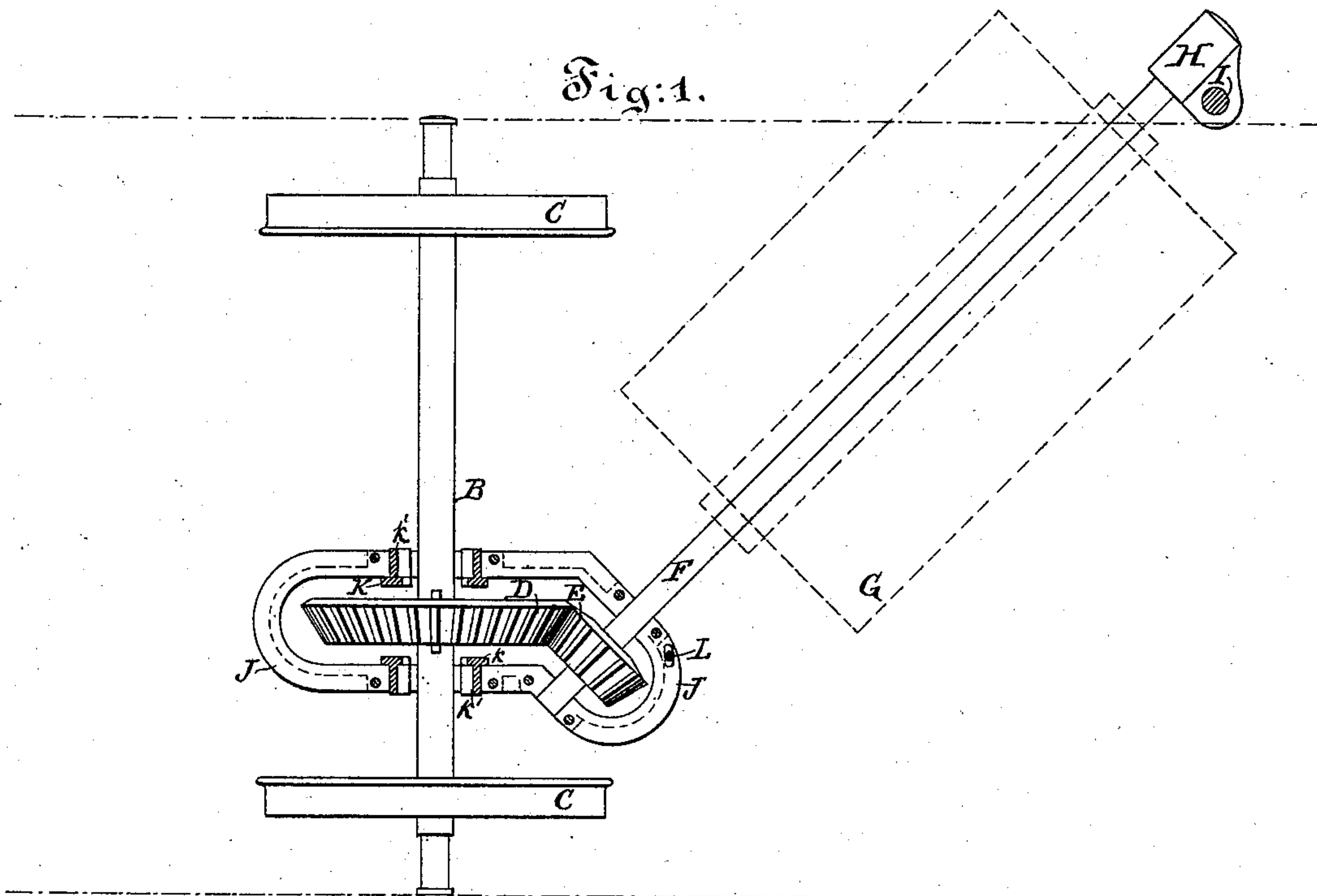
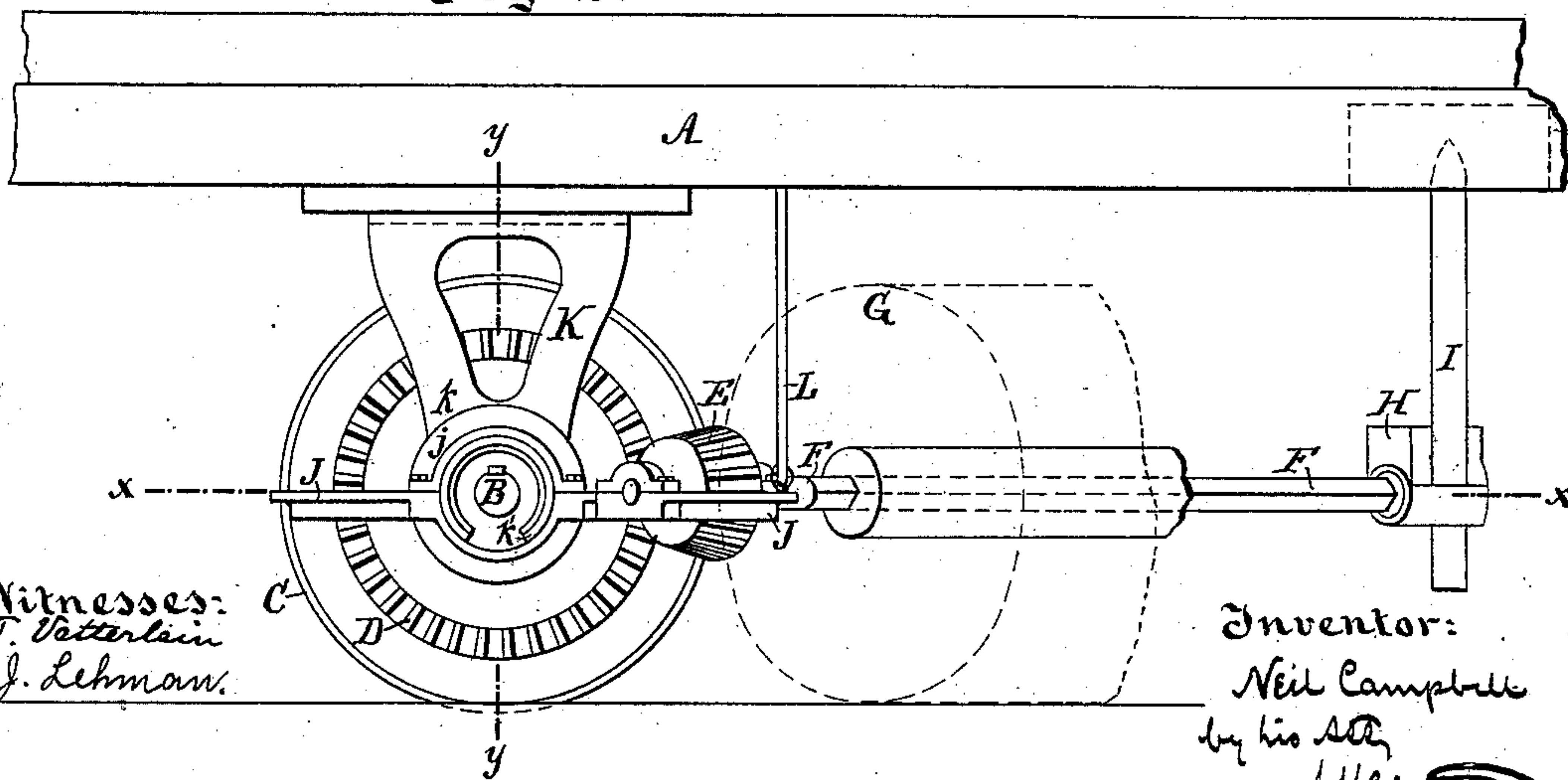


Fig:2.



Witnesses:
B. T. Vetterlein
A. J. Lehman.

Inventor:
Neil Campbell
by his atty
H. J. Campbell

UNITED STATES PATENT OFFICE.

NEIL CAMPBELL, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE BROOKLYN RAILWAY SUPPLY COMPANY, OF SAME PLACE.

SNOW-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 375,338, dated December 27, 1887.

Application filed March 24, 1885. Serial No. 159,913. (No model.)

To all whom it may concern:

Be it known that I, NEIL CAMPBELL, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Snow-Sweepers, of which the following is a specification.

The present invention relates to that class of sweepers in which revolving brooms are employed, which receive their motion from the axles of the machine by means of bevel-gearing. In such machines the bearing of the broom-shaft has usually been mounted on or connected with the axle of the machine or car, as illustrated, for example, in the patent of E. A. F. Olmstead, No. 64,695. This causes considerable strain to be thrown on the axle, which is objectionable. In the patent granted to me May 22, 1877, No. 190,956, I show a means of mounting the broom-shaft in a bearing independent of the car-axle, but this construction is very cumbersome and has not proved satisfactory.

The object of my present invention is to improve this construction and provide a satisfactory bearing for the yoke that has in it the bearings of the broom-shaft, and keeps the gear-wheel thereon engaged with the gear-wheel on the car-axle. My invention will be fully described hereinafter, and its novel features carefully defined in the claims.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a plan in section on the line xx , Fig. 2. Fig. 2 is a side elevation; and Fig. 3 is a transverse vertical section on the line yy , Fig. 2.

These drawings represent only a single broom-shaft and its driving-axle, with the invention applied thereto, it being understood that the construction is the same for both or all the revolving brooms that may be contained in the machine, there being preferably a special driving-axle for each broom-shaft.

A is the frame or platform of the car or machine, supported, in the usual manner, by suitable pedestals and journal-boxes, upon the axle B, which carries the running-wheels C.

The axle B carries in the position indicated a bevel-wheel, D, which engages with and imparts motion to the bevel-pinion E, upon one end of the obliquely-running broom-shaft F, upon which is mounted the broom G, (shown only in dotted lines,) and which may be of any ordinary or suitable construction. The other end of the shaft F is journaled in a box, H, which may be suspended by a rod, I, from the frame A, as indicated, or may be supported in any other suitable manner. The end of the shaft F which carries the bevel-pinion E runs in two bearings in the yoke J, as shown, the bevel-pinion E, as well as the bevel-wheel D, being inclosed within the yoke. The latter is supported in the following manner:

K is a hanger, of cast-iron, which is firmly bolted to the frame A in exactly such position that its two branches, k , embrace the wheel D, and that the circular rims k' at the lower ends of the branches k are strictly concentric to the axle B. The laterally-projecting rims k' serve as bearings or supports for the yoke J, which at this point is of such shape as to half inclose or apply upon said rims the caps j , which are firmly bolted to the yoke when the latter is brought into position, completing the circle, so as to hold the yoke firmly in position upon said rims.

In order to facilitate the mounting of the hanger K, the lower ends of its branches and the rims k' are not made continuous, but are cut open, as shown, so that the hanger may be brought into position and secured at any time after the running-wheels C and the bevel-wheel D are secured upon the axle.

In order to prevent that end of the yoke J in which the broom-shaft is journaled from falling by the yoke turning upon the rims k' , a stout rod, L, connected to the yoke at the point shown, is extended upward, and its upper extremity rigidly connected to the frame A, thus holding the yoke steady in a horizontal or substantially horizontal position.

I claim as my invention—

1. The combination, in a snow-sweeper, of the hanger K, having two branches, k k , each provided with a circular rim, k' , cut or open at the bottom, as shown, of the yoke J, pro-

vided with parti-circular bearings embracing the rims k' on the hanger, and with bearing-caps j , substantially as set forth.

2. The combination of the frame A, the
5 axle B and its wheels, the gear-wheel D on said axle, the broom, its shaft F, the gear-wheel E thereon meshing with wheel D, the yoke J, provided with bearings in which the broom-shaft is mounted, and with a bearing
10 and bearing-cap, j , whereby it is supported on the hanger, the supporting-rod L, and the said hanger K, having two branches, $k k$, each

provided with a circular rim, k' , on which the yoke J is mounted, said rims being concentric with the axle B, and cut or open, as shown, 15 in order to permit of the passage of the axle in placing the hanger, as set forth.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

NEIL CAMPBELL.

Witnesses:

G. STORMS CARPENTER,
A. H. GENTNER.