(No Model.)

A. T. BROWN.

CLEANER FOR TYPE WRITING MACHINES.

No. 406,873. Patented July 16, 1889.

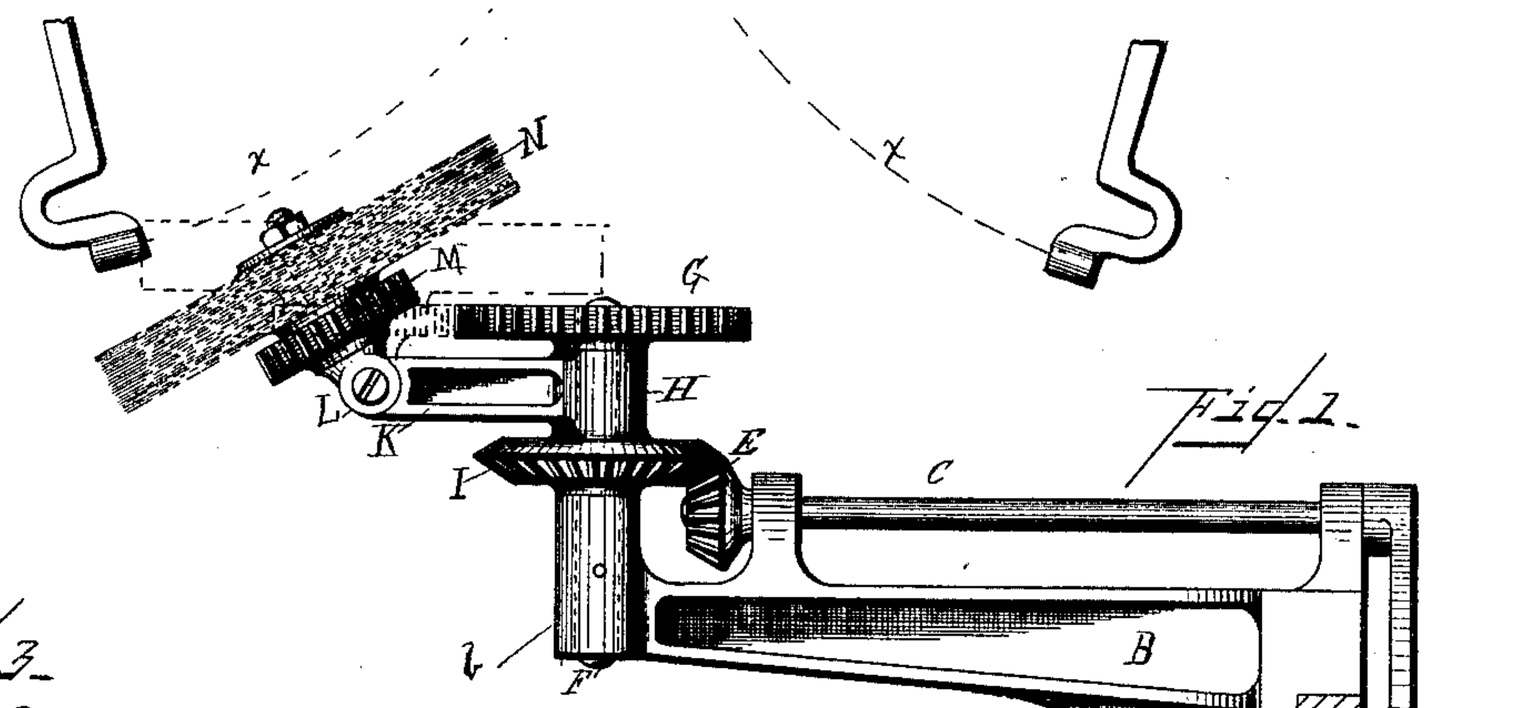

Fig. 1.

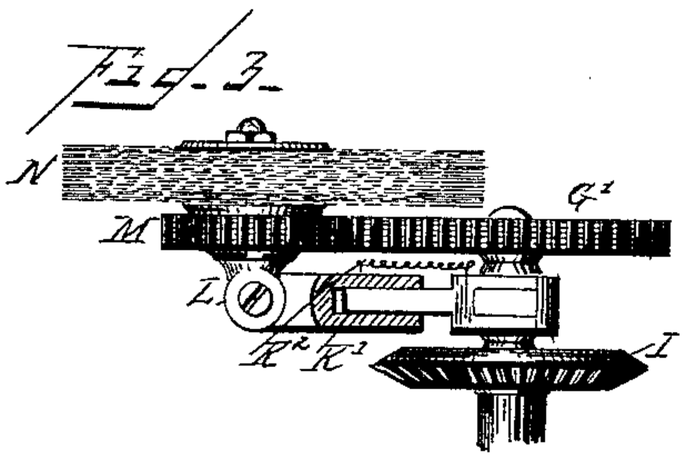

Fig. 3.

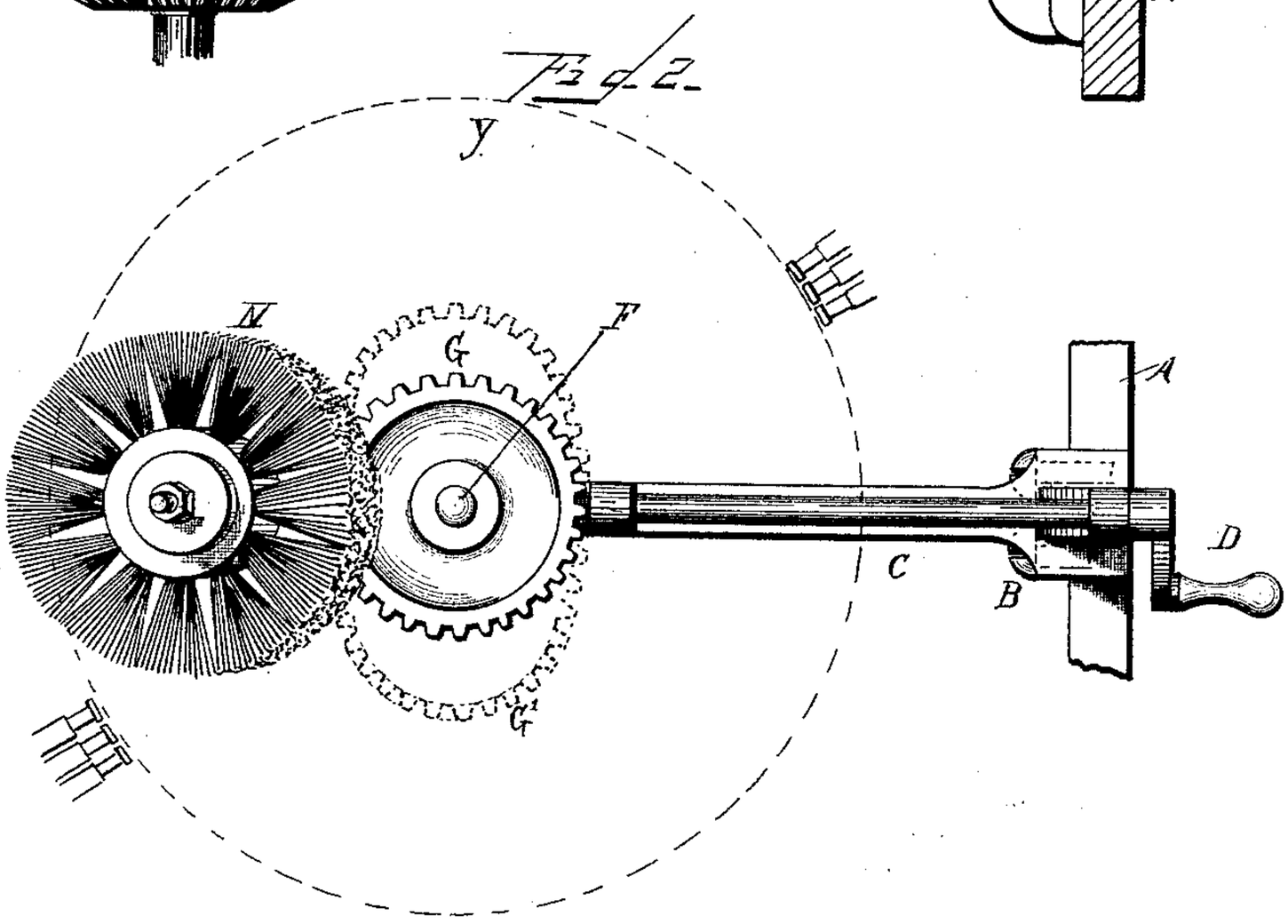

Fig. 2.

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ALEXANDER T. BROWN, OF SYRACUSE, NEW YORK.

CLEANER FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 406,873, dated July 16, 1889.

Application filed September 24, 1888. Serial No. 286,175. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER T. BROWN, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Cleaners for Type-Writing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to type-cleaning brushes for type-writing machines.

The object of the invention is to produce a brush attachment for type-writing machines which shall have a thorough action on the type, and in which the brush may be turned out of the way, so as not to interfere with the ordinary use of the machine.

To this end the invention consists in the construction and combination of parts constituting the device.

In the drawings, Figure 1 is a side elevation of the cleaning attachment, parts of the type-writing machine proper being shown in elevation or in section. Fig. 2 is a plan of the same, and Fig. 3 a detail of modification.

The reference-letter A indicates a part of the frame of a type-writing machine, to which the bracket B is attached in any suitable manner, preferably being removable. The bracket B has bearings for the shaft C, which shaft is provided with a crank D and a bevel-gear E, both being secured to said shaft C. The bracket B has a support *b* for a vertical shaft F, or the shaft F may be an extension of the bracket. A gear-wheel G is fixed to the upper end of this shaft. Gear-wheel G does not rotate. A hub H, having a bevel-gear I and an arm K thereon, turns on shaft F, the gear I meshing with gear E, as shown. Thus when crank D is turned the gears E I will rotate and the arm K will be carried round with the gear I. At the end of arm K there is a hinged piece L, which forms an axle for a gear-wheel M and a cylindrical brush N. The piece L can be turned on its hinge so as to bring the gear M and brush N in an inclined position, as in full lines, or in horizontal position, as in dotted lines, Fig. 1.

The relation of the brush to the type on levers O of the type-writer is such that when the brush is thrown into inclined position it will be out of the way of all the types, leaving their levers free to swing in the arcs *x x*, Fig. 1; but when the brush-shaft is vertical the gears G M will be in mesh and the brush will be opposite the faces of the types.

When the types are arranged in a circle, as indicated by dotted line *y*, Fig. 2, and the brush N is turned up to bear upon their faces, the rotation of the shaft C will cause the gear I to rotate and carry the brush round in a circle against the faces of all the types. The gear M, engaging the fixed gear G, will rotate in reverse direction, causing the brush to revolve against the types, but in a direction opposite to that of its forward movement. Thus the types will be thoroughly cleaned, with little wear on their surface-lines, and the brush may be readily turned into or out of operative position.

When the types are arranged in an ellipse, as in the well-known Remington type-writing machine, the arm which supports the brush may be made telescopic, as at K′, Fig. 3, and an oval or other formed gear G′ may be substituted for the round gear G. (See also dotted lines, Fig. 2.) The two parts of the telescopic arm K′ may be drawn together by a spring K^2. Then when the gears G′ M are in mesh the gear G′ will cause the gear M to travel in an ellipse.

It is apparent that the substitution of mechanical equivalents will not be a departure from my invention, as many kinds of gearing can be used to produce a like result. The leading features of this invention are that the brush shall have a planetary movement—that is, a rotation about its own axis while traveling over the face of the type—and that the brush may be turned out of the way of the types and thrown out of gear without removal from the machine.

I am aware that it is not broadly new to traverse a cleaning device across the face of the types of a type-writer, as shown in Ward's patent, No. 209,634, dated November 5, 1878.

What I claim is—

1. A cleaning attachment for type-writers, consisting of a supporting-piece, a planetary gear thereon, and a rotating cleaner driven by said gear, so as to turn on its own axis while it traverses the face of the type of the machine, all combined substantially as described.

2. In a type-writer cleaner, a driving-gear

and a rotating brush connected thereto, said brush supported on a movable axle, to be thrown into or out of operative position and gear at the same time, substantially as described.

3. In a type-writer, the combination of a rotating brush, a planetary gear by which it is operated, the fixed member of said gear corresponding in general outline to the position of the type on the machine, and an extensible arm supporting the brush, whereby the brush may be brought into contact with the type when arranged in other than circular position, substantially as described.

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

ALEXANDER T. BROWN.

Witnesses:

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