

(No Model.)

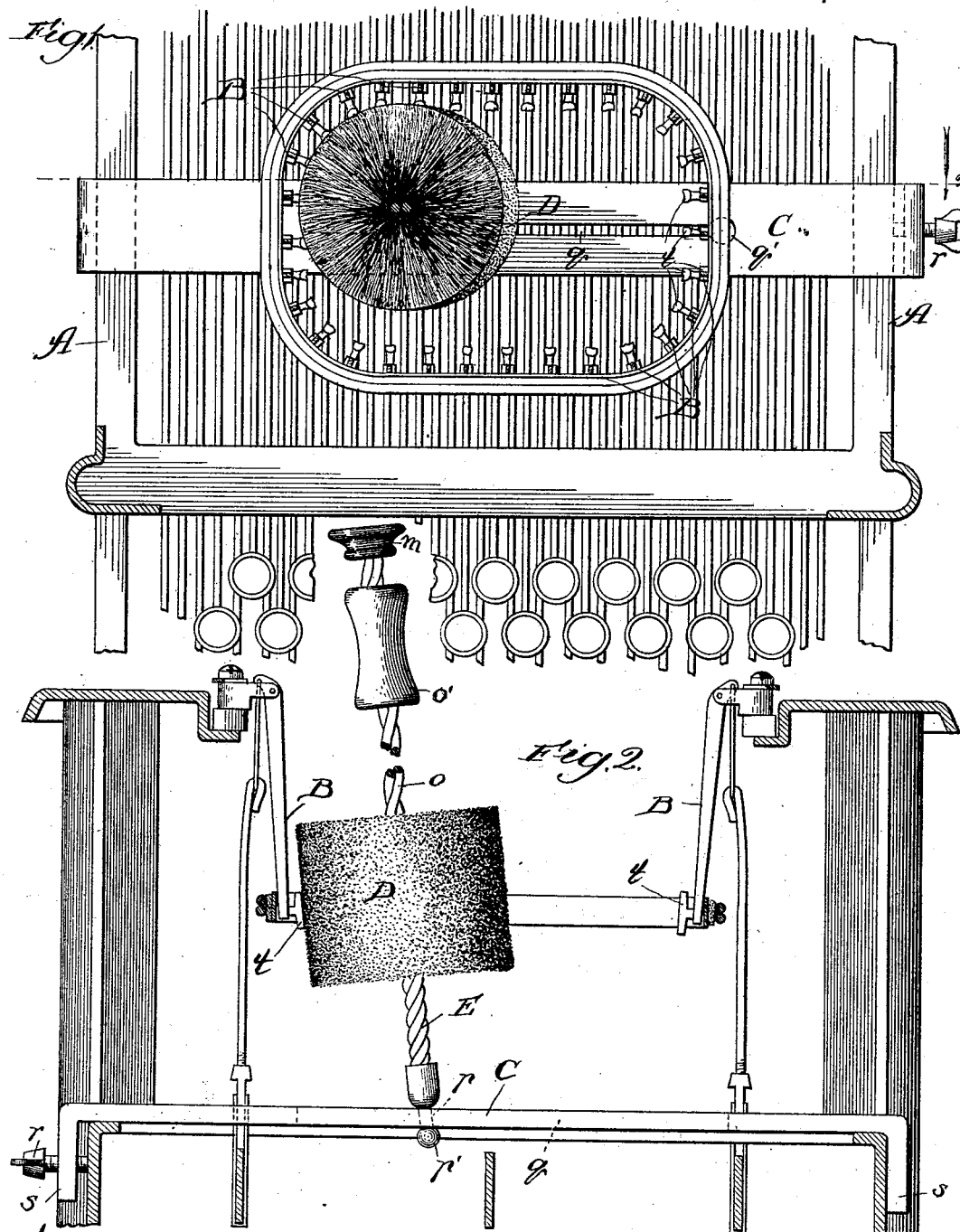
2 Sheets—Sheet 1.

A. B. REID.

CLEANER FOR TYPE WRITING MACHINES.

No. 494,304.

Patented Mar. 28, 1893.



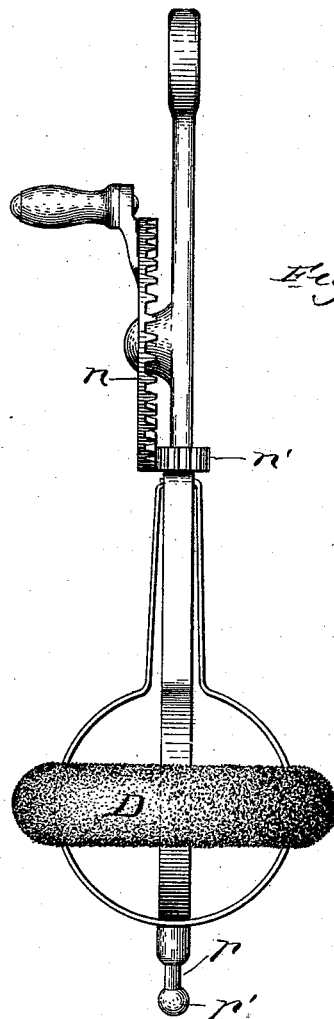
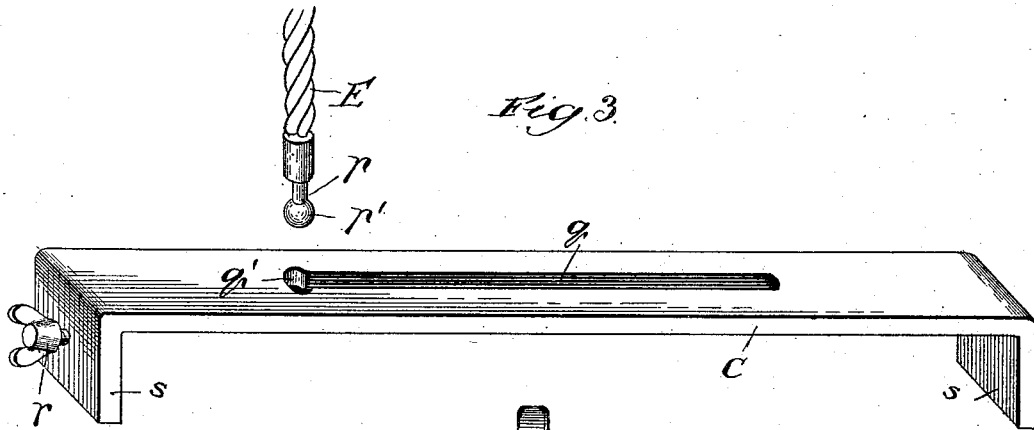
Witnesses:
 Paul Gaylord
 Clifford White.

Inventor:
Arthur B. Reid,
By Dyrenforth & Dyrenforth,
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UNITED STATES PATENT OFFICE.

ARTHUR B. REID, OF CHICAGO, ILLINOIS.

CLEANER FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 494,304, dated March 28, 1893.

Application filed October 14, 1892. Serial No. 448,826. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. REID, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Cleaners for Type-Writing Machines, of which the following is a specification.

My invention relates to a type cleaner for type-writing machines, and the purpose of the invention is to provide a mechanism which may be readily put into use without disturbing the arrangement of the machine, and which when in use will serve to remove all dirt, &c., from the face of the type. Devices of this character and intended to answer the same purpose are now in use and many forms have been patented, but so far as I am aware all have been open to objections either on the ground that its use involves a change in the structure of the typewriter and a permanent and undesirable addition to its parts, or has not been perfectly effective as a cleaning means, or has been in itself complicated, or has involved the employment of so much time to bring about the cleaning of the type as to present very little if any advantage over the previous method of cleaning each type by hand with a brush.

The object of my invention is to produce a type-cleaner which shall embody in itself economy of structure, rapidity and ease of working and an approximately perfect result, and which shall not necessarily involve a material change in or addition to the structure of the typewriter.

To these ends it consists in a brush revolvable on a vertical axis supported on a rod which may be introduced into the machine within the type field from above and supported either from above by hand or on a slotted plate placed in the machine under the outer ends of the type-bars, said brush being by this means easily moved from side to side to enable it to attack all the type in rotation, and the brush being revolved from above by the revolution of the rod which carries it, in any convenient and ready manner.

The invention consists further in the preferred details of construction, all of which are hereinafter more fully pointed out.

In the drawings—Figure 1 is a plan view

with a part broken away of a typewriting machine of the Remington pattern, showing the supporting plate in position. Fig. 2 is a vertical central section of a similar machine, selected, of course, merely for convenience in illustration, showing one form of my type cleaner in position for operation. Fig. 3 is a view in perspective of the supporting plate showing the lower end of the cleaner carrying-rod before its connection with the supporting plate; and Fig. 4 is a view of a modified form of cleaning device which may be substituted for that illustrated in Fig. 2.

A represents the side frame of a typewriter, namely, that located below the field of type at rest.

B represents a series of type levers which carry at their free ends the type, as indicated at *t*. It will be observed that, as in the more prominent form of typewriting machines, the type carried by the levers are arranged in the form of an oblong circle.

Extending from side to side of the frame A is a plate C, each end of which is turned down as indicated at *s*, so as to set over the side frame A. At one end a set-screw *r* may be provided to bear against one side of the frame A, to serve to hold the plate against movement under the vibrating action of the brush. The face of the plate C is provided with a slot *q*, which is enlarged, as indicated at *q'* at one end.

The cleaner involves a brush D held in such a position as to be rotatable on a vertical or approximately vertical axis. The axis of rotation is provided in a rod E which is provided at its lower end with a reduced portion *p* and knob *p'*. The reduced portion is of a dimension to move readily in the slot *q*, and the knob *p'* is of a dimension to pass easily through the enlargement *q'*, but to be prevented from passing through the slot *q*. By this arrangement the lower end of the rod E may be introduced into the slot and move from end to end thereof without danger of withdrawal. The rotation of the rod E, to which the brush is secured against vertical movement, may be accomplished in any convenient manner, either by the employment of the spiral screw *o*, over which moves the sharply pitched internally screw-threaded sliding nut *o'*, or by

the employment of the revoluble toothed disk *n* engaging the pinion *n'*, Fig. 4. The structure shown in Fig. 4, excepting for the addition of the brush *D* and end portions *p p'*, is in form like an egg-beater. Both these means for bringing about the revolution of the brush are mechanically old, and can find their substitutes in any other suitable device. It is intended by this invention to include any well known or appropriate means for bringing about rotation whether continuously in one direction or changeably in one and then the other direction, so long as the same shall be associated with the other novel elements herein-
 15 after pointed out.

Although the plate *C* is not only desirable, but a particularly useful element of the device, its employment is not absolutely essential. If it is omitted then the brush is supported from above as by the knob *m*, which may be extended into a handle if desired, and the operation in that case is to bring about the rotation of the brush on its axis, and at the same time move it across the field of type, to cause each type in rotation to be thoroughly cleansed. Where the plate *C* is employed, however, the lower extremity of the rod *E* is supported thereon, preferably through the medium of the slot *q*, and the brush is brought into contact with the type by moving the upper end of the rod backward and forward, while rotating the brush on its own axis in the manner described. The length of the slot *q* is subject to variation according to the amount of movement desired in the lower end of the rod *E*, and if no movement across the field of type is desired in this lower end, the elongated slot *q* may be reduced to a simple bearing aperture or equivalent.

40 What I claim as new, and desire to secure by Letters Patent, is—

1. A type cleaner for typewriters compris-

ing in combination a rod carrying at one end a handle, and toward the other end a brush, with means for rotating it, and a plate located 45 below the field of type of the typewriter to afford a vertically unchanging bearing for said rod and brush, whereby the rod carrying the brush may be inserted from above into the typewriter and held in a fixed position in 50 vertical relation to the field of type while being rotated, substantially as described.

2. A type cleaner for typewriters comprising a rotatable rod constructed in part of its length with a spiral outline, having at one end 55 a handle and toward the other end a brush, and a nut adapted to be moved by hand, thereby to rotate the rod, whereby the cleaner may be inserted into the field of type and held in one hand, while being rotated by longitudinal 60 movement of the other, substantially as described.

3. In combination with a typewriter, the slotted plate *C* supported below the field of type and extending across the machine, the 65 rod carrying the brush, said rod having at its lower end means for inserting and retaining it in the slot of the plate *C*, and means, such as described, for rotating the rod and brush carried thereby, and moving the same across 70 the field of type, substantially as described.

4. The combination with a typewriter, of the slotted plate *C* having the enlarged aperture *q'*, a rod *E* carrying at its lower end the reduced portion *p* and knob *p'* and toward its 75 lower end the brush *D*, and means connected with said rod and operative from above the machine for rotating the rod and the brush carried thereby, and moving the same across the field of type, substantially as described.

ARTHUR B. REID.

In presence of—

M. J. FROST,

W. N. WILLIAMS.