

(No Model.)

2 Sheets—Sheet 1.

A. T. BROWN.
TYPE CLEANER.

No. 421,044.

Patented Feb. 11, 1890.

Fig. 1.

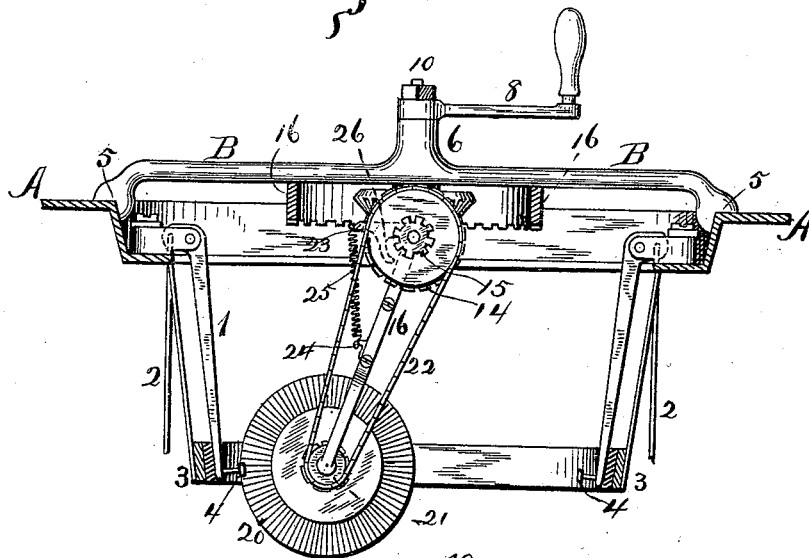
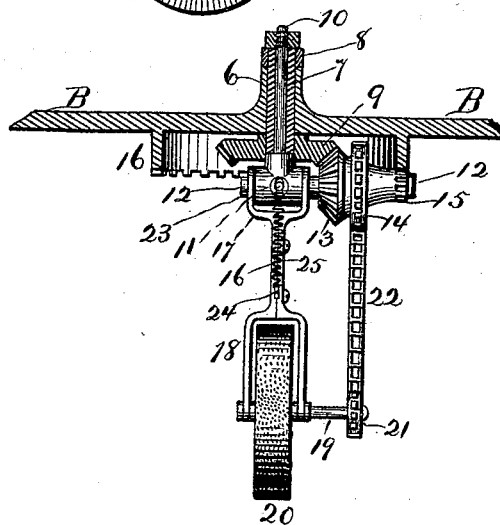


Fig. 2.



Witnesses

Alexander T Brown

Inventor

H. P. Denison

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By his Attorneys
Smith & Denison

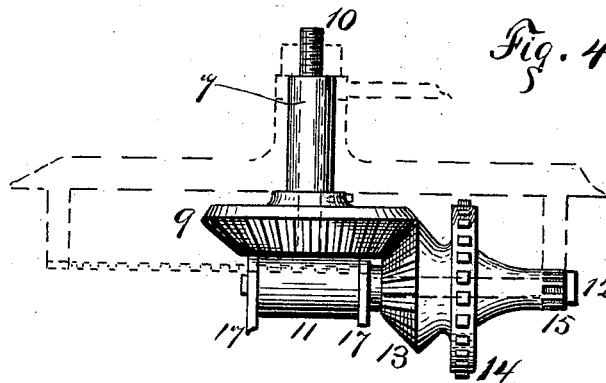
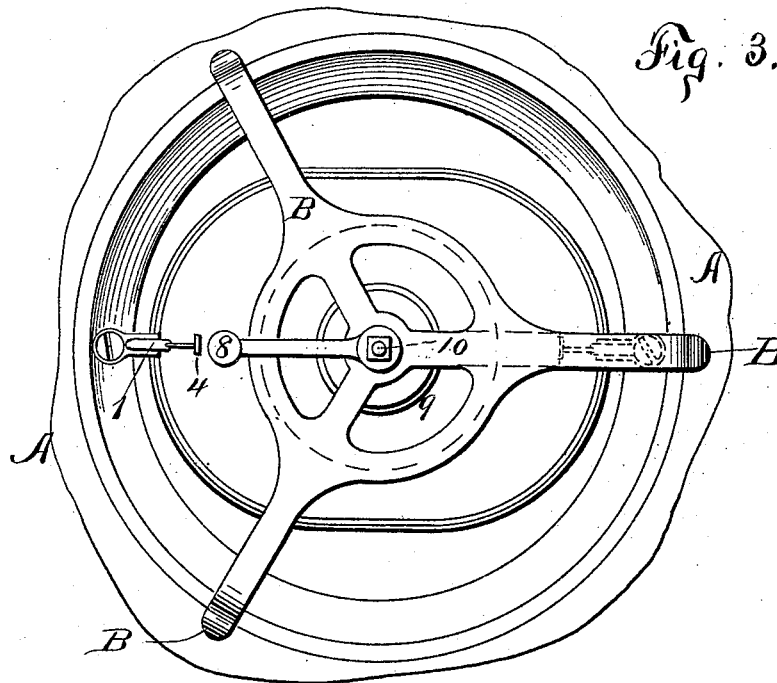
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UNITED STATES PATENT OFFICE.

ALEXANDER T. BROWN, OF SYRACUSE, NEW YORK.

TYPE-CLEANER.

SPECIFICATION forming part of Letters Patent No. 421,044, dated February 11, 1890.

Application filed July 18, 1889. Serial No. 317,846. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER T. BROWN, of Syracuse, county of Onondaga, in the State of New York, a citizen of the United States, have invented certain new and useful improvements in Type-Cleaners, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical sectional elevation of the brush applied to a type-writing machine. Fig. 2 is a front sectional elevation of the same detached from the machine. Fig. 3 is a top plan view. Fig. 4 is a front elevation of the driving mechanism detached.

My invention relates to the construction and operation of rotating brushes, and especially brushes adapted to clean the type of a type-writer, the brush mechanism being detachably connected to the type-writer.

My object is to produce a detachable brush-cleaner in which the brush stands vertically and is adapted to travel around the circle or oval of the type-bar basket, cleaning the type in succession, and which can be traveled around one way and then be reversed to travel back to the starting-point again, thus adapting it for use upon any type-writing machine in which the type-bars are normally in a circular or oval basket.

My invention consists in the several novel features of construction and operation hereinafter described, and specifically set forth in the claims annexed hereto.

It is constructed as follows: A is the top plate of a type-writer, in which the type-arms 1 are mounted in any ordinary manner, 2 being the pitman-rod connecting the type-arms to the mechanism for operating them.

3 is a ring, circular or oval, dependent from the top of the machine, and against which the lower ends of the type-arms rest in their pendent position. The type upon the type-arms are shown at 4.

B is the supporting-frame of my cleaner, consisting of bars of suitable length bent at their outer ends and provided with jaws 5 fitting against the top plate at the angle thereof, as shown in Fig. 1. These arms together comprise a supporting-bracket, and they are provided with a central boss 6, which boss has a central opening to receive the vertical

shaft 7, upon the outer end of which is mounted the crank 8, and upon its lower end a bevel-gear 9 is secured. The shaft 7 is hollow and receives the hanger-supporting rod 10, which carries the hanger 11, in which is mounted the horizontal shaft 12, and upon this shaft I mount the bevel-gear 13, the sprocket-wheel 14, and the pinion 15, and this pinion engages with the rim-gear 16, of circular form and concentric with the type-bar basket, this gear being secured to or integral with the supporting-frame B. An arm 16, provided with the yoke 17 at its upper end, the arms of which fit loosely over the shaft 12, and at its lower end with arms 18, forms a yoke carrying the brush-shaft 19, upon which the brush 20 is secured, and the outer end of the brush-shaft carries a sprocket-pinion 21, connected to the pinion 14 by the belt 22. Upon the hanger 11, I place a hook 23, and 24 is another hook upon the arm 16, and 25 is a spring mounted between the two hooks and holding or supporting the arm 16 in proper position to yieldingly engage the brush with the type.

At 26 in Fig. 1 I show a stop adapted to engage with the front side of the arm 16 and regulate the outward throw of the brush against the type.

It will be observed, first, that with the rotation of the crank-handle 8 and bevel-gear 9 the gear 13, meshing with 9, will be rotated, and this will rotate the sprocket 14, rotating the pinion 21, and this will rotate the brush rapidly, the spring 24 holding the brush in yielding contact with the type 4; and, secondly, with the rotation of the crank, the pinions 9 and 13, and sprocket 14 the pinion 15 is simultaneously rotated, and, engaging with the rim-gear 16, travels around on that gear, carrying with it the hanger 11 and bringing the brush 20 into engagement with all of the type successively around the basket, and that when the rotation of the crank 8 is reversed the motion of the brush will be reversed, so as to brush the type the other way, and the travel of the pinion 15 around on the gear 16 will be reversed, so that the type will be brushed in the reverse order.

What I claim is—

1. A type-cleaning brush supported yieldingly and pendent from a frame supported by

the top plate of the machine and means for rotating the brush in contact with the type, substantially as described.

5 2. A type-cleaner comprising a frame supported by the top plate of a machine and carrying centrally the vertical shaft and handle, and gear mechanism connected by a belt to a pinion rotating a brush pendent from the main frame and engaging with the type successively, substantially as described.

10 3. The combination, with the type-arms and type of a type-writer in their pendent position, of a brush engaging with the type successively and pendent from the main frame, and means for holding the brush in yielding contact with the type, and means for rotating the brush, substantially as described.

15 4. A type-cleaner comprising a main frame

carrying centrally an upright shaft and crank-handle and driving-gear, a rim-gear upon the 20 under side of the frame concentric with the type-arm basket, a pinion engaging with the rim-gear and rotated by the main crank, and a brush rotated by said crank and brought into successive contact with the type, substantially as described. 25

5. The combination, with the type-arms and type, of a brush rotating in a vertical plane and brushing the type successively in the direction of the length of the type-arms. 30

In witness whereof I have hereunto set my hand this 8th day of July, 1889.

ALEXANDER T. BROWN.

Witnesses:

H. P. DENISON,

F. T. DENISON.