

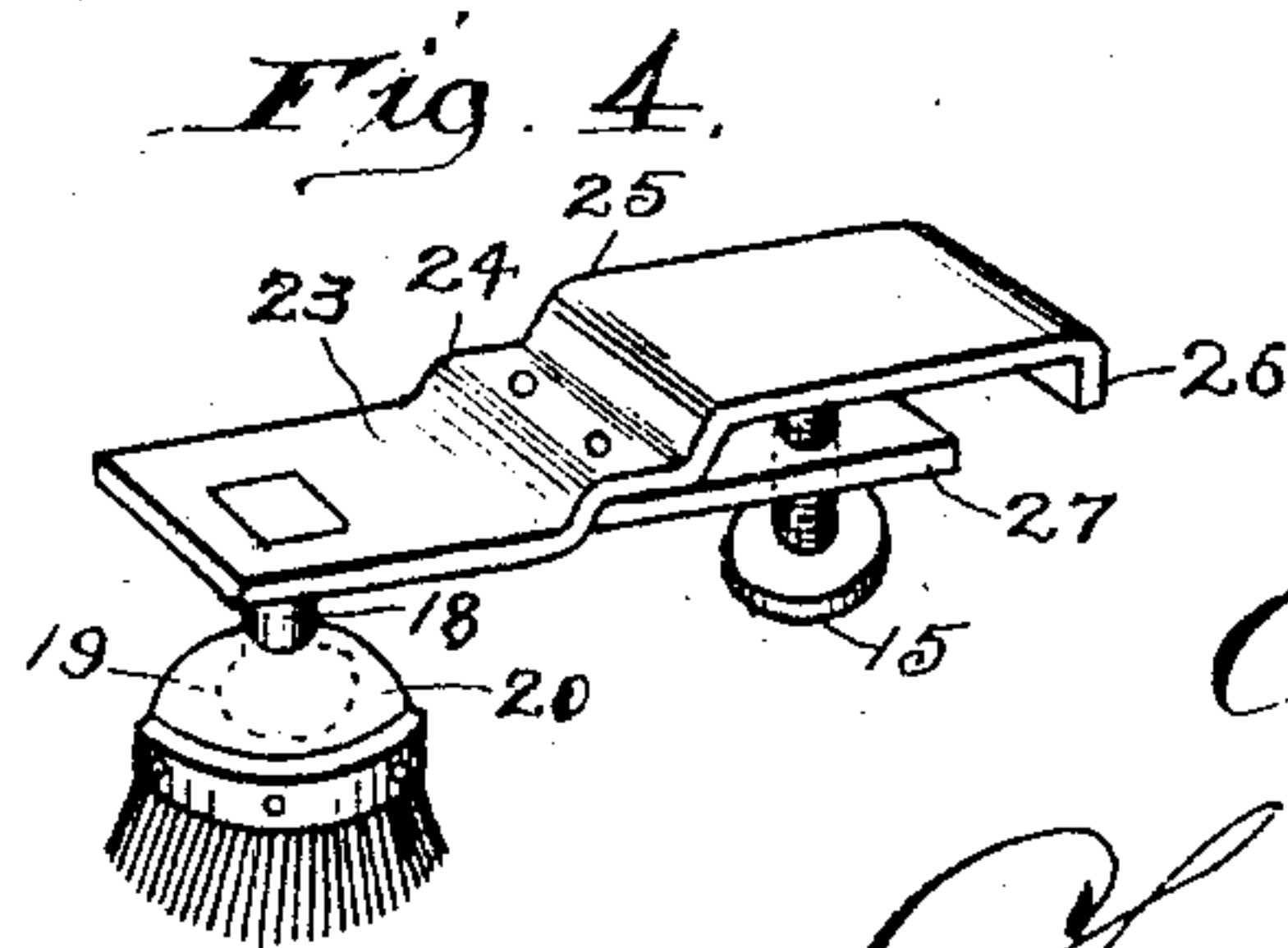
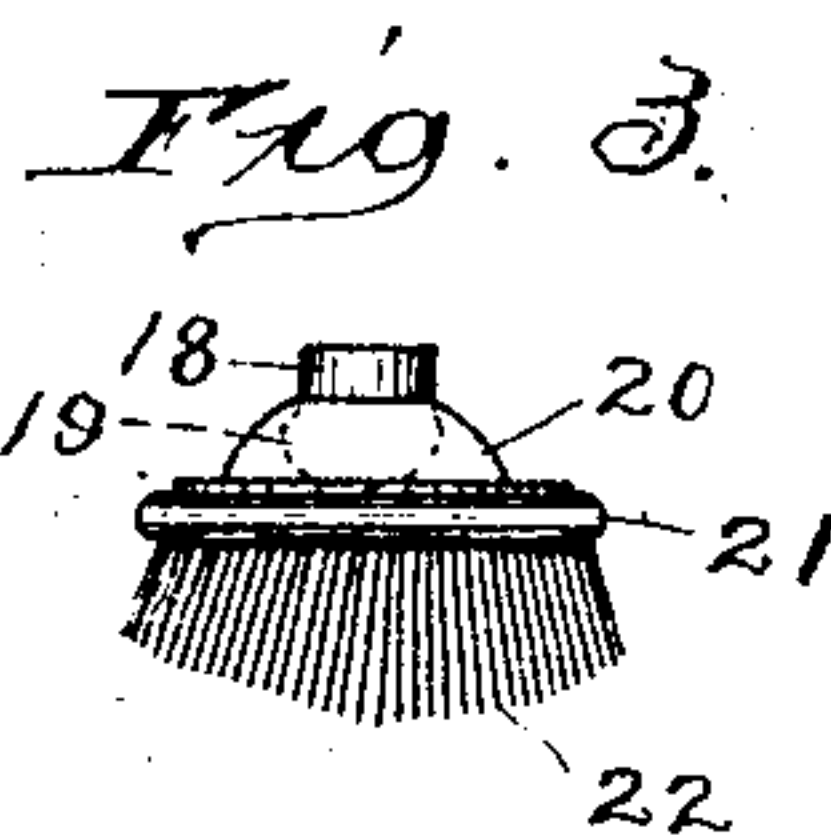
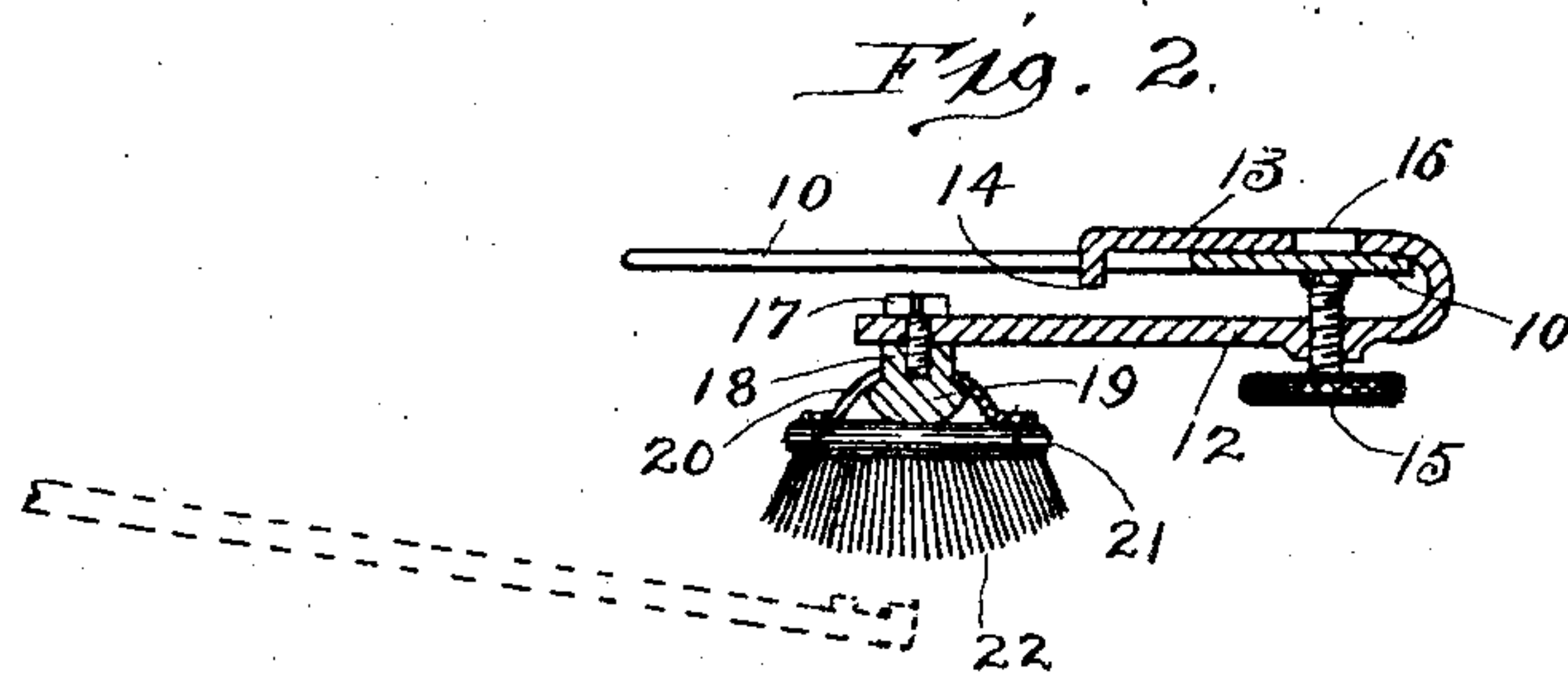
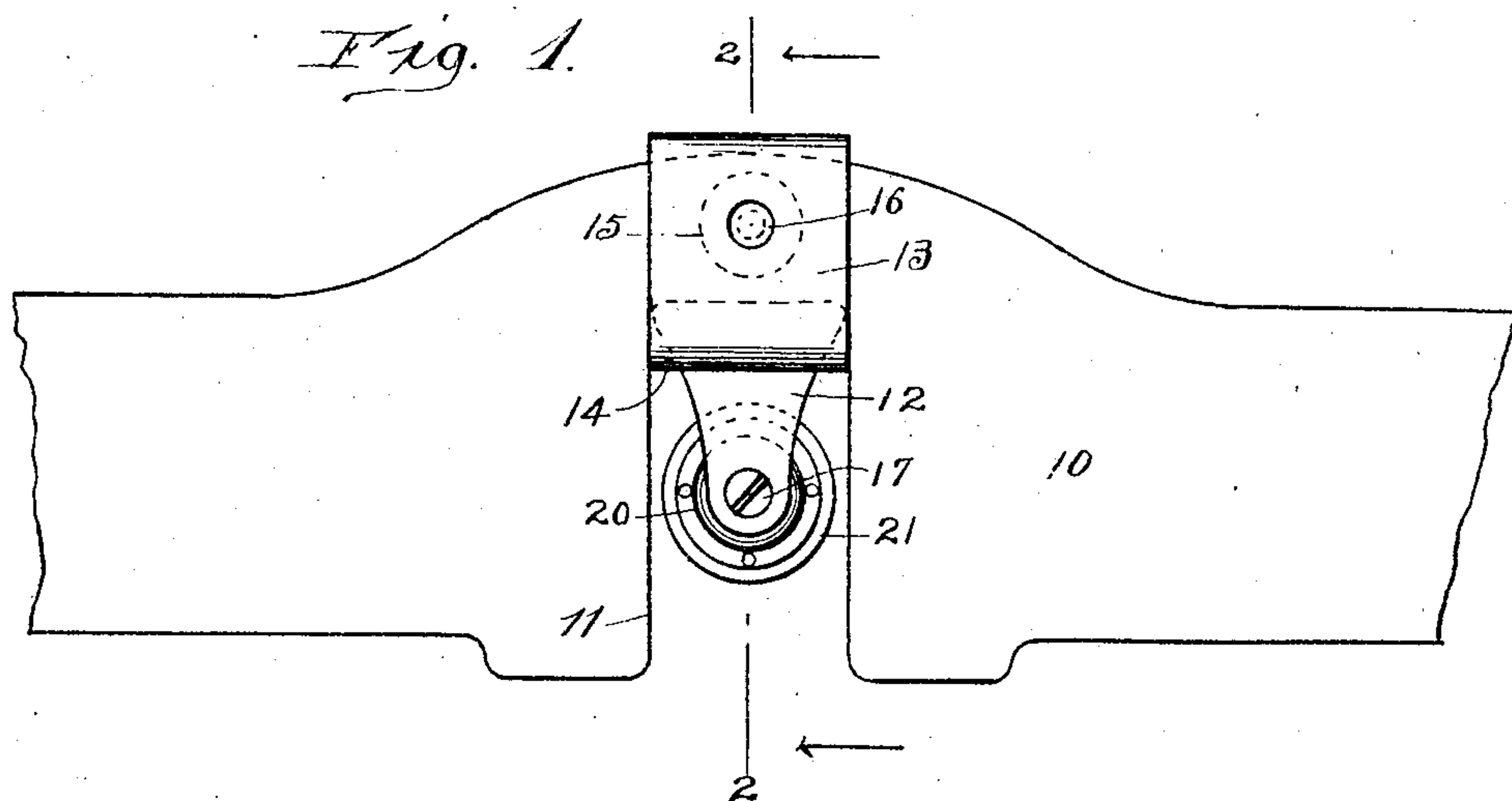
No. 786,027.

PATENTED MAR. 28, 1905.

A. HALL.

TYPE CLEANING ATTACHMENT FOR TYPE WRITING MACHINES.

APPLICATION FILED MAY 2, 1904.



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TYPE-CLEANING ATTACHMENT FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 786,027, dated March 28, 1905.

Application filed May 2, 1904. Serial No. 205,884.

To all whom it may concern:

Be it known that I, ALFRED HALL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented certain new and useful Improvements in Type-Cleaning Attachments for Type-Writing Machines, of which the following is a specification.

This invention relates to improvements in
10 a device to be used for cleaning type on that class of type-writing machines which have the type arranged in a circular or what is known to the trade as "basket" form; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the
15 parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The object of the invention is to provide a type-cleaning device which shall be simple
20 and inexpensive in construction, strong, durable, and effective in operation and so made that it may be readily placed in position on the ribbon-shield or removed therefrom without displacing or interfering with the ribbon
25 which may occupy its normal position while the types are being cleaned by the device.

Another and an important object of the invention is to provide means whereby the type while being operated from the keyboard are
30 thoroughly and effectually cleaned by means of a brush which is so constructed and arranged that it will be struck off center by the type, thus causing its bristles to prick or pick out the gum and other substances adhering
35 to the type.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art
40 to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a plan view of a portion of a
45 ribbon-shield of a type-writing machine, showing the ribbon removed and illustrating a type-cleaning attachment embodying one form of my invention. Fig. 2 is a sectional view taken on line 2 2 of Fig. 1 looking in the direction
50 indicated by the arrows and showing the clean-

ing devices secured to the ribbon-shield. Fig. 3 is a detached view of the brush in elevation; and Fig. 4 is a detached perspective view of the cleaning device, showing a modification
55 in its construction.

Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The reference-numeral 10 represents a portion of a ribbon shield or guard of a type-
60 writing machine, which, as usual, is provided at its middle with a rearwardly-extending recess 11 in order that the type may press the ribbon against the paper on which the impression is made. The attachment which is se-
65 cured horizontally on the ribbon-shield 10 and extends into and below the recess 11 thereof comprises a plate or frame 12, which has its rear portion bent upwardly and then forwardly, as
70 at 13, in parallelism with the lower portion of the plate, yet a slight distance therefrom, as is clearly shown in Fig. 2 of the drawings. The front part of the upper portion of the
75 frame 12 is provided with a downwardly-depending transverse portion 14, which when the attachment is in position on the ribbon-shield fits snugly between the edges of the
80 recess 11, and thereby prevents any lateral movement of the device. The rear portion of the plate or frame 12 is provided with a set or thumb screw 15, employed for secur-
85 ing the frame to the ribbon-shield, as is apparent by reference to Fig. 2 of the drawings. The upper end of the screw 15 may be flattened and enlarged, so as to present a
90 larger area against the lower surface of the ribbon-shield and so as to prevent it being accidentally removed from the plate or frame. This enlargement may be formed on the end
95 of the screw 15 by means of a suitable instrument inserted through an opening 16 in the upper portion of the frame. As shown in Figs. 1 and 2 of the drawings, the front portion of the lower part of the frame or plate
100 12 is preferably slightly tapered and has secured on its lower surface by means of a screw 17 or otherwise a cylindrical projection 18, which has a rounded head 19 to fit in a socket 20, secured on the upper surface of the brush-back 21, which is preferably

circular in shape and is provided with a series of bristles 22, which are somewhat radially arranged on the back of the brush 21, as is clearly shown. Instead of employing a frame constructed as above described I may use a frame constructed as shown in Fig. 4 of the drawings, which consists of a plate 23, to the front portion of which is secured a downward projection 18, having on its lower portion a rounded head 19 to fit in the socket-piece 20 on the brush-back, as in the former construction. As shown, the plate 23 in the modification now under consideration is bent to form upwardly-progressing steps 24 and 25, the latter of which extends horizontally and rearwardly and has its free end provided with a downturned flange 26 to overlap the rear edge of the ribbon-shield. Horizontally secured to the lower surface of the step 24 of the frame is a rearwardly-extending piece 27, which carries a thumb or set screw 15 to be used for fixing the frame on the ribbon-shield, which may be done by passing that portion of the shield at the rear end of the recess 11 therein between the free end of the piece 27 and the flange 26, when the frame may be located so as to lie flatly on said portion of the shield, while the depressed portion of the frame will be located some distance below and horizontally with the ribbon-shield, so as to allow the ribbon to lie between them. In this modified form of the frame it is apparent that the portion thereof forming the steps 24 and 25 will rest between the edges of the recess 11 of the ribbon-shield and prevent lateral movement or wobbling of the device.

From the foregoing and by reference to the drawings it will be seen and clearly understood that the brush will be located at the proper point above the circle formed by the type, so that when they are operated from the keyboard they will strike the bristles 22 of the brush off center, which will cause the brush to oscillate or turn on its support 18, thus causing the bristles to prick and pick out or free the type of any substances adhering thereto, thus effectually and satisfactorily cleaning them. It is also evident that the brush will have a swiveled movement as well as an oscillating or what may be termed a "universal" movement.

While I have shown and described in the foregoing a frame for the brush as being supported by the ribbon-shield, yet I do not desire to be limited to such a support, as the frame may be supported in any desirable

manner on the type-writing machine, but where ribbon-shields are used it is quite convenient to support the frame for the brush on the same.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the ribbon-shield of a type-writing machine, of a frame supported thereby, and a brush loosely mounted thereon in the path of the type so as to be struck off center thereby and capable of universal movement.

2. The combination with the ribbon-shield of a type-writing machine, of a frame supported thereby and having a portion horizontally projected beneath the shield to underlie the ribbon, and a brush loosely mounted on the said projected portion in the path of the type so as to be struck off center thereby and capable of universal movement.

3. The combination with the ribbon-shield of a type-writing machine, of a frame detachably mounted thereon and having means to prevent its lateral movement, and a brush loosely mounted on the frame in the path of the type so as to be struck off center thereby and capable of universal movement.

4. The combination with a recessed ribbon-shield of a type-writing machine, of a frame secured thereon at the rear of said recess and having portions projected between the edges of the recess and horizontally beneath the shield to underlie the ribbon, and a brush loosely mounted on the horizontally-projected portion in the path of the type so as to be struck off center thereby and capable of universal movement.

5. The combination with a type-writing machine, of a frame suitably supported thereon, and a brush loosely mounted on said frame in the path of the type so as to be struck off center thereby and capable of universal movement.

6. The combination with a type-writing machine, of a frame suitably supported thereon and having a portion projected to underlie the ribbon, and a brush loosely mounted on the projected portion of the frame in the path of the type so as to be struck off center thereby and capable of universal movement.

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